



# **DEPARTMENT OF BOTANY**

## **TEACHING PLAN**

**FOR GENERAL COURSE (UNDER CBCS SYSTEM)**

**SEMESTER-I GENERAL**

**PLANT DIVERSITY I**

**(BOT-G-CC-1-1-TH)**

**(THEORETICAL)**

TOPIC	SUBTOPIC	TEACHER*	TEACHING METHOD	CLASS HOUR
Introduction	Introduction to different plant groups	ID	Class lecture, power point presentation, interactive discussion	2 hr
Phycology	Diagnostic characters and examples of Cyanophyceae, Rhodophyceae, Chlorophyceae, Charophyceae and Phaeophyceae, Classification: Criteria and system of Fritsch, Life histories of <i>Chlamydomonas</i> , <i>Chara</i> and <i>Ectocarpus</i> , Role of algae in the environment, agriculture, biotechnology and industry	ID	Class lecture, power point presentation, interactive discussion	14 hr



Myecology	Diagnostic characters and examples of Oomycotina, Mastigomycotina, Zygomycotina, Ascomycotina, Basidiomycotina, Deuteromycotina (Ainsworth, 1973). Life histories of <i>Rhizopus</i> and <i>Ascobolus</i> , Economic importance of fungi, Fungal symbioses: <i>Mycorrhiza</i> , Lichen and their importance	AC	Class lecture, power point presentation, interactive discussion	12 hr
Phytopathology	Symptoms - necrotic, hypoplastic and hyperplastic, Koch's postulates, Biotrophs and Necrotrophs, Disease triangle, Pathotoxins and phytoalexins (brief concept), Symptoms, causal organism, disease cycle and control measures of plant diseases (Late blight of potato, Brown spot of Rice, Stem rot of jute)	MM/AC	Class lecture, power point presentation, interactive discussion	10 hr
Bryophytes	Unifying features of archaegoniates and transition to land habit, Amphibian nature of bryophytes, Diagnostic characters and examples of Hepaticopsida, Anthocerotopsida and Bryopsida (Proskauer 1957), Life histories of <i>Marchantia</i> and <i>Funaria</i> , Ecological and economic importance	MM	Class lecture, power point presentation, interactive discussion	10 hr
Anatomy	Stomata - Types (Metcalf & Chalk), Anatomy of root, stem and leaf of monocots and dicots, Stelar types and evolution, Secondary growth – normal in dicot stem and anomaly in stem of <i>Tecoma</i> & <i>Dracaena</i>	TD	Class lecture, power point presentation, interactive discussion	12 hr

\*Teachers exchange topics with each other periodically

**SEMESTER-I GENERAL  
PLANT DIVERSITY I (PRACTICAL)  
(BOT-G-CC-1-1-P)**

TOPIC	SUBTOPIC	TEACHER	TEACHING METHOD	CLASS HOUR
Work out	Microscopic preparation, drawing and labeling of <i>Chlamydomonas</i> , <i>Chara</i> , <i>Ectocarpus</i> , <i>Rhizopus</i> and <i>Ascobolus</i> -	Two batches of students & All teachers are involved	Demonstration, interactive discussion	5 hr
Anatomical studies	Stem- <i>Cucurbita</i> , sunflower and maize. Root- <i>Colocassia</i> , gram and orchid. Leaf- Nerium	-DO-	Demonstration, interactive discussion	10 hr
Identification	Cryptogamic specimens (macroscopic/microscopic as prescribed in the theoretical syllabus. Pathological specimens (herbarium sheets) of Late blight of potato, Brown spot of rice and stem rot of jute.	-DO-	Demonstration, interactive discussion	6 hr



Excursion/ field work	Study of plant diversity, habitat of algae and fungi	-DO-	Demonstration, interactive discussion	6 hr
-----------------------	--	------	---------------------------------------	------

**SEMESTER II  
CC-2/GE-2  
PLANT DIVERSITY II (BOT-G-CC-2-2-TH)  
THEORETICAL**

TOPIC	SUBTOPIC	TEACHER*	TEACHING METHOD	CLASS HOUR
Pteridophytes	Diagnostic characters and examples of Psilophyta, Lycophyta, Sphenophyta & Filicophyta (Gifford & Foster 1989). Life histories of <i>Selaginella</i> and <i>Pteris</i> , Economic importance	AC		12 hr

Gymnosperms	Progymnosperms (brief idea), Diagnostic characters and examples of Cycadophyta, Coniferophyta and Gnetophyta (Gifford & Foster 1989), Life histories of Cycas and Pinus, Williamsonia (reconstructed), Economic importance of Gymnosperms	TD	Class lecture, power point presentation, interactive discussion	12 hr
Paleobotany & Palynology	Fossil, fossilization process and factors of fossilization, Importance of fossil study. Geological time scale, Palynology - Definition, spore & pollen (brief idea), Applications	AC/TD	Class lecture, power point presentation, interactive discussion	10 hr
Angiosperm Morphology	Inflorescence types with examples, Flower, Fruits and seeds- type and examples.	ID & MM	Class lecture, power point presentation, interactive discussion	12 hr
Taxonomy of Angiosperms	Artificial, Natural and Phylogenetic systems of classification with one example each, Diagnostic features of following families- Malvaceae, Leguminosae (Fabaceae), Cucurbitaceae, Rubiaceae, Compositae (Asteraceae), Solanaceae, Acanthaceae, Labiatae (Lamiaceae), Orchidaceae, Gramineae (Poaceae).	ID & MM	Class lecture, power point presentation, interactive discussion	14 hr



**SEMESTER II  
CC-2/GE-2  
PLANT DIVERSITY II (PRACTICAL-)  
(BOT-G-CC-2-2-P)**

TOPIC	SUBTOPIC	TEACHER	TEACHING METHOD	CLASS HOUR
WORK OUT	Dissection, drawing and labelling, description of angiospermic plants and floral parts, floral formula and floral diagram, identification (family) from the following families: Leguminosae (Fabaceae), Malvaceae, Solanaceae, Labiatea (Lamiaceae), Acanthaceae.	Two batches of students & All teachers are involved	Demonstration, interactive discussion	12 hr
Identification	Macroscopic specimens of <i>Selaginella</i> and <i>Pteris</i> , male and female strobilus of <i>Cycas</i> and <i>Pinus</i> , Anatomical slides (stellar types, transfusion tissue, sieve tube, sunken stomata, lenticels), inflorescence types.	-DO-	Demonstration, interactive discussion	4 hr
Spot identification	Spot identification of the following Angiospermic plants (scientific names and families):	-DO-	Demonstration, interactive discussion	6 hr

	<i>halimtonii</i> (Fabaceae), <i>Crotolaria palida</i> (Fabaceae), <i>Coccinia grandis</i> (Cucurbitaceae), <i>Solanum indicum</i> (Solanaceae), <i>Nicotiana plumbagenifolia</i> (Solanaceae), <i>Leucas aspera</i> (Lamiaceae), <i>Leonurus sibiricus</i> (Lamiaceae), <i>Parthenium hysterophorus</i> (Asteraceae), <i>Tridax procumbense</i> (Asteraceae), <i>Eclipta prostrate</i> (Asteraceae), <i>Eragrostis tenella</i> (Poaceae), <i>Chrysopogon aciculatus</i> (Poaceae), <i>Eleusine indica</i> (Poaceae), <i>Vanda taesellata</i> (Orchidaceae).			
Field excursion	Local Excursions (at least two including one to Acharya Jagadish Chandra Bose Botanic Garden, Shibpur, Howrah)	-DO-	Demonstration, interactive discussion	6-8 hr Per excursion
Herbarium	Demonstration for preparation of herbarium	-DO-	Demonstration, interactive discussion	2 hr



**SEMESTER III GENERAL  
CC-3/GE-3  
(BOT-G-CC-3-3-TH)  
(THEORETICAL)**

TOPIC	SUBTOPIC	TEACHER*	TEACHING METHOD	CLASS HOUR
CELL BIOLOGY, GENETICS	Ultrastructure of nuclear envelope, nucleolus and their functions, Molecular organisation of metaphase chromosome (Nucleosome concept).	ID	Class lecture, power point presentation, interactive discussion	6 hr
	Chromosomal aberrations- deletion, duplication, inversion & translocation, Aneuploidy & Polyploidy-types, importance and role in evolution.	MM	Class lecture, power point presentation, interactive discussion	6 hr
	Central Dogma, Transcription and Translation.	AC	Class lecture, power point presentation, interactive discussion	8 hr

	Genetic Code- properties.	AC	Class lecture, power point presentation, interactive discussion	2 hr
	Linkage group and Genetic map (three-point test cross)	MM	Class lecture, power point presentation, interactive discussion	3 hr
	Mutation – Point mutation (tautomerisation; transition, transversion and frame shift), Mutagen-physical and chemical.	MM	Class lecture, power point presentation, interactive discussion	6 hr
	Brief concept of Split gene, Transposons.	ID	Class lecture, power point presentation, interactive discussion	2 hr



MICROBIOLOGY	<p><u>Viruses</u>- Discovery, general structure, replication (general account), DNA virus (T-phage); Lytic and lysogenic cycle, RNA virus (TMV); Economic importance</p> <p><u>Bacteria</u>- discovery, general characteristics and cell structure; reproduction- vegetative, asexual and recombination (conjugation, transformation and transduction); Economic importance.</p>	AC & TD	Class lecture, power point presentation, interactive discussion	16 hr
--------------	--	---------	---	-------

\*Teachers exchange topics with each other periodically

**SEMESTER III GENERAL  
CC-3/GE-3  
(BOT-G-CC-3-3-TH)  
(RACTICAL)  
(BOT-G-CC-3-3-P)**

TOPIC	SUBTOPIC	TEACHER	TEACHING METHOD	CLASS HOUR
Cell Biology:	Staining (Aceto-orcein) and squash preparation of onion root tip: study of mitotic stages. Determination of mitotic index (from onion root tip).	Two batches of students & All teachers are involved	Demonstration, experimental work	6 hr
Microbiology	Workout Gram staining (curd/any natural source)	-DO-	Demonstration, experimental work	4 hr
Identification	Cytological slides of different mitotic and meiotic stages. Different forms of bacteria ( <i>Coccus</i> , <i>Bacillus</i> , <i>Spiral</i> )	-DO-	Demonstration	6 hr



**SEMESTER IV  
CC-4/ GE-4  
(BOT-G-CC-4-4-TH)  
THEORETICAL**

TOPIC	SUBTOPIC	TEACHER*	TEACHING METHOD	CLASS HOUR
Proteins	Primary, secondary and tertiary structure, Nucleic acid- DNA structure, RNA types, Enzyme- Classifications with examples (IUBMB), Mechanism of action.	MM	Class lecture, power point presentation, interactive discussion	8 hr
Transport in plants	Ascent of sap and Xylem cavitation, Phloem transport and source-sink relation.	TD	Class lecture, power point presentation, interactive discussion	4 hr

Photosynthesis	Pigments, Action spectra and Enhancement effect, Electron transport system and Photophosphorylation, C3 and C4 photosynthesis, CAM- Reaction and Significance.	AC	Class lecture, power point presentation, interactive discussion	10 hr
Respiration	Glycolysis & Krebs cycle— Reactions and Significance, ETS and oxidative phosphorylation.	AC	Class lecture, power point presentation, interactive discussion	6 hr
Nitrogen metabolism	Biological dinitrogen fixation, Amino acid synthesis (reductive amination and transamination).	TD	Class lecture, power point presentation, interactive discussion	6 hr
Plant Growth regulators	Physiological roles of Auxin, Gibberellin, Cytokinin, Ethylene, ABA	ID	Class lecture, power point presentation	10 hr



Photoperiodism	(Plant types, Role of phytochrome and GA in flowering) and Vernalization	MM	Class lecture, power point presentation, interactive discussion	4 hr
Senescence	Brief idea.	ID	Class lecture, power point presentation, interactive discussion	1 hr

\*Teachers exchange topics with each other periodically

**SEMESTER IV  
CC-4/ GE-4  
(BOT-G-CC-4-4-P)  
PRACTICAL**

TOPIC	SUBTOPIC	TEACHER	TEACHING METHOD	CLASS HOUR
Plant Physiology	Experiment on Plasmolysis.	Two batches of students & All teachers are involved	Demonstration, experimental work	2 hr
	Measurement of leaf area (graphical method) and determination of transpiration rate per unit area by weighing method.		Demonstration, experimental work	2 hr
	Imbibition of water by dry seeds - proteinaceous and fatty seeds.		Demonstration, experimental work	2 hr
	Evolution of O <sub>2</sub> during photosynthesis (using graduated tube).		Demonstration, experimental work	2 hr
	Evolution of CO <sub>2</sub> during aerobic respiration and measurement of volume.		Demonstration, experimental work	2 hr



## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Dr Arnab Saha**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,5,8,10, 12,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2
SEC	A2,B2	2,2			2

## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Dr Arnab Saha**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,5,8,10, 12,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2
SEC	A2,B2	2,2			2



## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Dr Arnab Saha**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,5,8,10, 12,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2
SEC	A2,B2	2,2			2

## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Dr Arnab Saha**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,5,8,10, 12,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2
SEC	A2,B2	2,2			2



## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Dr Arnab Saha**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,5,8,10, 12,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2
SEC	A2,B2	2,2			2

## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Prof.AVISHEK GUPTA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	7
GE	1,2,4	1,2			2
SEC	A2,B2	3,1			2
AECC	1				1
DSE	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Prof.AVISHEK GUPTA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	7
GE	1,2,4	1,2			2
SEC	A2,B2	3,1			2
AECC	1				1
DSE	A2				1



## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Prof.AVISHEK GUPTA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	7
GE	1,2,4	1,2			2
SEC	A2,B2	3,1			2
AECC	1				1
DSE	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Prof.AVISHEK GUPTA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	7
GE	1,2,4	1,2			2
SEC	A2,B2	3,1			2
AECC	1				1
DSE	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Prof.AVISHEK GUPTA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	7
GE	1,2,4	1,2			2
SEC	A2,B2	3,1			2
AECC	1				1
DSE	A2				1



## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Dr sharmistha sardar**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,10, 13,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2

## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Dr sharmistha sardar**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,10, 13,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2

## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Dr sharmistha sardar**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,10, 13,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2



## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Dr sharmistha sardar**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,10, 13,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2

## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Dr sharmistha sardar**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,10, 13,14	Module 1,2,3		Jan-june, July -Dec	9
GE	1,2,4	1,2			3
DSE	A4,B3	3,1			2

## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Prof.PAYEL MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
SEC	A2				1



## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Prof.PAYEL MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
SEC	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Prof.PAYEL MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
SEC	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Prof.PAYEL MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,9,13,14	Module 1,2,3		Jan-june, July-Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
SEC	A2				1

## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Prof.PAYEL MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,5,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
SEC	A2				1



## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Dr.RAKHI MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	8
GE	1,2,4	1,2			3
DSE	A2,B1				2

## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Dr.RAKHI MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July-Dec	8
GE	1,2,4	1,2			3
DSE	A2,B1				2

## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Dr.RAKHI MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	8
GE	1,2,4	1,2			3
DSE	A2,B1				2

## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Dr.RAKHI MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	8
GE	1,2,4	1,2			3
DSE	A2,B1				2



## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Dr.RAKHI MUKHERJEE**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	1,3,4,6,8,10, 11,14	Module 1,2,3		Jan-june, July -Dec	8
GE	1,2,4	1,2			3
DSE	A2,B1				2

## Teaching Plan

**Department: BENGALI**

**Session:2018-2019**

**Name of the teacher:Prof.ROZINA KHATUN**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,6,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
AECC	1				1

## Teaching Plan

**Department: BENGALI**

**Session:2019-2020**

**Name of the teacher:Prof.ROZINA KHATUN**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,6,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
AECC	1				1

## Teaching Plan

**Department: BENGALI**

**Session:2020-2021**

**Name of the teacher:Prof.ROZINA KHATUN**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,6,8,9,13,14	Module 1,2,3		Jan-june, July- Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
AECC	1				1

## Teaching Plan

**Department: BENGALI**

**Session:2021-2022**

**Name of the teacher:Prof.ROZINA KHATUN**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,6,8,9,1 3,14	Module 1,2,3		Jan-jun e, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
AECC	1				1



## Teaching Plan

**Department: BENGALI**

**Session:2022-2023**

**Name of the teacher:Prof.ROZINA KHATUN**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	2,3,4,6,8,9,13,14	Module 1,2,3		Jan-june, July -Dec	8
GE	1,2,4	1,2			2
DSE	A4,B3	3,1			2
AECC	1				1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Acid base, redox reaction and solubility	5	2
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
2 <sup>nd</sup> Year Hons.	Paper-IVA	CHT-21b Unit-1	s-, p- block elements	5	1
	Paper-IVB	CHP-24a	Inorganic analytical estimation	5	4
2 <sup>nd</sup> Year General	Paper-IIIB	CGP-24	Inorganic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31c Unit-1	Electrochemical and spectral analysis and analytical separation	5	2
		CHT-31d Unit-1	Gravimetry and titrimetry	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Atomic structure and electroanalytical method.	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
2 <sup>nd</sup> Year Hons.	Paper-IVA	CHT-21a Unit-1	Chemical periodicity -II	5	1
	Paper-IVB	CHP-24a	Inorganic analytical estimation	5	4
2 <sup>nd</sup> Year General	Paper-II	CGT-21b Unit-1	Principle of inorganic qualitative	5	1
		CGT-22b Unit-1	Basic physical chemistry-V		
	Paper-IIIB	CGP-24	Inorganic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31a Unit-1	Coordination compounds	5	2
		CHT-31b Unit-1	Organometallic chemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	General Treatment of Reaction Mechanism I	5	1
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	1
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	General Treatment of Reaction Mechanism II	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
2 <sup>nd</sup> Year General	Paper-II	CGP-32	Organic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32c Unit-1	Carbocycles and heterocycles	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31a Unit-1	Chemical analysis	5	2
		CGT-31c Unit-1	Environmental chemistry		
GE / SEM-1/CEMG	CC/GE-1	Org., Inorg, Physical Chemistry	Fundamentals of organic chemistry, stereochemistry, SN1, SN2, E1, E2	5	3
GE / SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Quantitative estimation	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	2
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	Stereochemistry-I	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid	5	1

			compounds		
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Kinetics, viscosity etc.	5	2
2 <sup>nd</sup> Year Hons.	Paper-III A	CHT-22b Unit-1	Nitrogen compounds and organometallics	5	1
2 <sup>nd</sup> Year General	Paper-II	CGP-32	Organic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32a Unit-1	Carbanion chemistry and cyclic stereochemistry	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIII A	CHP-34b	Organic qualitative analysis and preparation	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	Bonding and physical properties	5	2
2 <sup>nd</sup> Year Hons.	Paper-III A	CHT-22a Unit-1	Addition reactions	5	2
2 <sup>nd</sup> Year General	Paper-II	CGT-21a Unit-1	Basic physical chemistry-I and II	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32b Unit-1	Synthetic strategy and asymmetric synthesis.	5	2
3 <sup>rd</sup> Year General	Paper-IV A	CGT-31b Unit-1	Industrial chemistry-I	5	2
GE / SEM-1/CEMG	CC/GE-1TH	Org., Inorg, Physical Chemistry	Atomic structure, periodicity, acids and bases.	5	2
GE / SEM-1/CEMG	CC/GE-1PR	Inorganic Lab	Inorganic estimation	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-2-TH	Physical Chemistry-1	Kinetic theory and gaseous state	5	3
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Simple physical chemistry experiments	5	2
2 <sup>nd</sup> Year Hons.	Paper-IIIB	CHT-23b Unit-1	Quantum chemistry-I	5	1
	Paper-IVB	CHP-24b	Instrumental estimation	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33c Unit-1	Photo chemistry and kinetics	5	2
	Paper-VIIB	CHP-35a Unit-1	Physical chemistry experiments-I	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and Physical chemistry experiments	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 18 to Dec. 18**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab. 1A	Acid base and redox titration	5	2
2 <sup>nd</sup> Year Hons.	Paper-IIIB	CHT-23a Unit-1	Thermodynamics and chemical equilibrium	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33a Unit-1 CHT-33b Unit-1	Solid state interfaces, dielectric systems Phase equilibrium and colligative properties	5	2
	Paper-VIIB	CHP-35a Unit-1	Physical chemistry experiments-I	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and Physical chemistry experiments	5	2
GE/SEM-1/CEMG	CC/GE-1 TH	Inorganic, organic, physical chemistry	Chemical kinetics and liquid	5	2
GE/SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Inorganic estimation	5	2



## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-I- ionic and covalent. Chemical bonding-II metallic bond and weak chemical forces	5	2
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
2 <sup>nd</sup> Year Hons.	Paper-IVA	CHT-21b Unit-2	Redox and precipitation reaction	5	2
	Paper-IVB	CHP-24a	Inorganic analytical estimation	5	2
2 <sup>nd</sup> Year General	Paper-IIIB	CGP-24	Inorganic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31a Unit-2	d- / f- block elements	5	2
		CHT-31c Unit-2	Statistical methods in chemical analysis		

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-II, MOT, radioactivity	5	1
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
2 <sup>nd</sup> Year Hons.	Paper-IVA	CHT-21a Unit-2	Other types of bonding	5	1
	Paper-IVB	CHP-24a	Inorganic analytical estimation	5	4
2 <sup>nd</sup> Year General	Paper-II	CGT-21b Unit-2	Basic inorganic chemistry-III	5	1
	Paper-IIIB	CGP-24	Inorganic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31b Unit-2	Bioinorganic chemistry	5	2
		CHT-31b Unit-2	Thermodynamics of dissolution		

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Substitution and elimination reactions	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	4
2 <sup>nd</sup> Year Hons.	Paper-IIIA	CHT-22a Unit-2	Elimination and aromatic substitution	5	1
2 <sup>nd</sup> Year General	Paper-IIIB	CGP-24	Inorganic qualitative analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32b Unit-2	Carbohydrates	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31a Unit-2	Error analysis and computer application	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Chemical thermodynamics, chemical equilibrium, solutions, error analysis	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Stereochemistry-II, Reaction mechanism-III	5	2
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
2 <sup>nd</sup> Year Hons.	Paper-IIIA	CHT-22b Unit-2	Organic rearrangements	5	2
	Paper-IVB	CHP-24a	Inorganic analytical estimation	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32a Unit-2	Organic spectroscopy	5	2
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Reaction mechanism-III	5	2
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32c Unit-2	Amino acids, peptides, nucleic acids	5	2
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31b Unit-2 CGT-31c Unit-2	Industrial chemistry-II  Industrial chemistry-III	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Phase equilibrium, solid, aliphatic compounds, redox reactions	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 19 to June 19**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
2 <sup>nd</sup> Year Hons.	Paper-IIIB	CHT-23b Unit-2	Electrochemistry	5	2
	Paper-IVB	CHP-24b	Instrumental estimation	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33a Unit-2 CHT-33c Unit-2	Quantum chemistry-II  Spectroscopy	5	2
	Paper-VIIIB	CHP-35a CHP-35b	Physical chemistry experiments-I Physical chemistry experiments-II	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and physical chemistry	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

Department: CHEMISTRY

Session: Jan. 19 to June 19

Name of the teacher: DR. SUDESHNA SAWOO

Course type (CC/ GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
2 <sup>nd</sup> Year Hons.	Paper-IIIB	CHT-23a Unit-2	Liquid state, viscosity etc.	5	2
2 <sup>nd</sup> Year General	Paper-II	CGT-21a Unit-2 CGT-21a Unit-2 CGT-22b Unit-2	Basic physical chemistry-II  Basic physical chemistry-IV  Basic physical chemistry-VI	5	3
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33b Unit-2	Statistical thermodynamics and 3 <sup>rd</sup> law.	5	2
	Paper-VIIIB	CHP-35a CHP-35b	Physical chemistry experiments-I Physical chemistry experiments-II	5	4
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and physical chemistry	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Acid base, redox reaction and solubility	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Noble gases, inorganic polymers, coordination chemistry I	5	2
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31c Unit-1	Electrochemical and spectral analysis and analytical separation	5	2
		CHT-31d Unit-1	Gravimetry and titrimetry	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Atomic structure and electroanalytical method.	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Chemical periodicity and s, p block elements	5	1
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
GE / SEM-3 / CEMG	CC/GE-3	Inorg. Phy. Organic chemistry	Chemical bonding and p- and d-block elements, coordination chemistry.	5	2
GE / SEM-3 / CEMG	CC/GE-3 PR	Inorganic Practical	Qualitative inorganic analysis	5	2
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31a Unit-1	Coordination compounds	5	2
		CHT-31b Unit-1	Organometallic chemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	General Treatment of Reaction Mechanism I	5	1
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	1
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	General Treatment of Reaction Mechanism II	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32c Unit-1	Carbocycles and heterocycles	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31a Unit-1	Chemical analysis	5	2
		CGT-31c Unit-1	Environmental chemistry		
GE / SEM-1/CEMG	CC/GE-1	Org., Inorg, Physical Chemistry	Fundamentals of organic chemistry, stereochemistry, SN1, SN2, E1, E2	5	3
GE / SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Quantitative estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	2
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	Stereochemistry-I	5	1



CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Kinetics, viscosity etc.	5	2
CC/SEM-3/ CEMA	CC-3-7-TH	Organic chemistry-3	Carbonyl compounds	5	3
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32a Unit-1	Carbanion chemistry and cyclic stereochemistry	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
SEC / SEM-3/CEMA	SEC-A2	Analytical clinical biochemistry	Carbohydrates, Proteins, enzymes, lipids	5	1
GE / SEM-3/CEMG	CC/GE-3TH	Org., Inorg, Physical Chemistry	Electrochemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	Bonding and physical properties	5	1
CC/SEM-3/ CEMA	CC-3-7-TH	Organic Chemistry-3	Organometallics, nucleophilic addition to $\alpha,\beta$ -unsaturated C=O compounds.	5	1
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32b Unit-1	Synthetic strategy and asymmetric synthesis.	5	1
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31b Unit-1	Industrial chemistry-I	5	
GE / SEM-1/CEMG	CC/GE-1TH	Org., Inorg, Physical Chemistry	Atomic structure, periodicity, acids and bases.	5	1
GE / SEM-1/CEMG	CC/GE-1PR	Inorganic Lab	Inorganic estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-2-TH	Physical Chemistry-1	Kinetic theory and gaseous state	5	3
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Simple physical chemistry experiments	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical thermodynamics-1 and 2, systems of variable composition	5	1
CC/SEM-3/ CEMA	CC-3-5-PR	Physical Lab.	Physical chemistry experiments	5	4
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33c Unit-1	Photo chemistry and kinetics	5	1
	Paper-VIIB	CHP-35a Unit-1	Physical chemistry experiments-I	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and Physical chemistry experiments	5	2
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Statistical analysis	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 19 to Dec. 19**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab. 1A	Acid base and redox titration	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical equilibrium, electrochemistry	5	1
SEC/SEM-3/ CEMA	SEC-A2	Analytical clinical biochemistry	Lipoproteins, DNA, RNA, Biochemistry of diseases, blood and urine analysis	5	1
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33a Unit-1 CHT-33b Unit-1	Solid state interfaces, dielectric systems Phase equilibrium and colligative properties	5	2
	Paper-VIIB	CHP-35a Unit-1	Physical chemistry experiments-I	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and Physical	5	2

			chemistry experiments		
GE/SEM-1/CEMG	CC/GE-1 TH	Inorganic, organic, physical chemistry	Chemical kinetics and liquid	5	1
GE/SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Inorganic estimation	5	2
GE/SEM-3/CEMG	CC/GE-3 TH	Inorganic, organic, physical chemistry	Aromatic hydrocarbon, organometallics, aryl halides	5	1
GE/SEM-3/CEMG	CC/GE-3 PR	Inorganic Lab.	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-I- ionic and covalent. Chemical bonding-II metallic bond and weak chemical forces	5	2
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Chemistry of d and f block, reaction kinetics and inorganic reaction mechanism	5	2
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31a Unit-2 CHT-31c Unit-2	d- / f- block elements  Statistical methods in chemical analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-II, MOT, radioactivity	5	1
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Coordination chemistry-II, VBT, CFT, MO, magnetism and colour.	5	1
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
3 <sup>rd</sup> Year Hons.	Paper-V	CHT-31b Unit-2 CHT-31b Unit-2	Bioinorganic chemistry  Thermodynamics of dissolution	5	2
GE / SEM-4 / CEMG	CC/GE-4	Inorg. Phy. Organic chemistry	CFT and quantum chemistry	5	1
GE / SEM-4 / CEMG	CC/GE-4 PR	Org.Lab.	Organic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Substitution and elimination reactions	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	4
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Nitrogen compounds	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab-4	Qualitative analysis of solid organic compounds	5	4
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32b Unit-2	Carbohydrates	5	1
	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31a Unit-2	Error analysis and computer application	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Chemical thermodynamics, chemical equilibrium, solutions, error analysis	5	1
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

\

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Stereochemistry-II, Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Retrosynthesis, asymmetric synthesis etc.	5	1
SEC / SEM-4/CEMA	SEC-B3	Pharmaceutical chemistry	Drugs, pharmaceuticals, fermentations	5	3
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32a Unit-2	Organic spectroscopy	5	1

	Paper-VIB	CHP-34a	Spectroscopic analysis of organic compounds	5	2
	Paper-VIIIA	CHP-34b	Organic qualitative analysis and preparation	5	2
GE / SEM-4/CEMG	CC/GE-4 TH	Org., Inorg, Physical Chemistry	Carboxylic acids, amines, aminoacids , carbohydrates	5	2
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Rearrangement reactions	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab.-4	Qualitative analysis of solid organic compounds	5	4
3 <sup>rd</sup> Year Hons.	Paper-VIA	CHT-32c Unit-2	Amino acids, peptides, nucleic acids	5	1
3 <sup>rd</sup> Year General	Paper-IVA	CGT-31b Unit-2 CGT-31c Unit-2	Industrial chemistry-II  Industrial chemistry-III	5	1
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Phase equilibrium, solid, aliphatic compounds, redox reactions	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4



## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Foundation of quantum mechanics, crystal structure	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	4
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33a Unit-2 CHT-33c Unit-2	Quantum chemistry-II  Spectroscopy	5	1
	Paper-VIIIB	CHP-35a CHP-35b	Physical chemistry experiments-I Physical chemistry experiments-II	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and physical chemistry	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 20 to June 20**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Colligative properties, phase equilibrium	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	2
3 <sup>rd</sup> Year Hons.	Paper-VIIA	CHT-33b Unit-2	Statistical thermodynamics and 3 <sup>rd</sup> law.	5	2
	Paper-VIIIB	CHP-35a CHP-35b	Physical chemistry experiments-I Physical chemistry experiments-II	5	2
3 <sup>rd</sup> Year General	Paper-IVB	CGP-32	Inorganic estimation and physical chemistry	5	2
GE/SEM-4/CEMG	CC/GE-4	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Acid base, redox reaction and solubility	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Noble gases, inorganic polymers, coordination chemistry I	5	2
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Fertilizers, batteries, alloys, catalysis, chemical explosives	5	2
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Atomic structure and electroanalytical method.	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Chemical periodicity and s, p block elements	5	1
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Glass, ceramic, cement, paint, pigment metal coating etc.	5	3
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2
GE / SEM-3 / CEMG	CC/GE-3	Inorg. Phy. Organic chemistry	Chemical bonding and p- and d-block elements, coordination chemistry.	5	2
GE / SEM-3 / CEMG	CC/GE-3 PR	Inorganic Practical	Qualitative inorganic analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	General Treatment of Reaction Mechanism I	5	1
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	1
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	General Treatment of Reaction Mechanism II	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Pericyclic reactions	5	1
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
GE / SEM-1/CEMG	CC/GE-1	Org., Inorg, Physical Chemistry	Fundamentals of organic chemistry, stereochemistry, SN1, SN2, E1, E2	5	3
GE / SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Quantitative estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	2
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	Stereochemistry-I	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Kinetics, viscosicity etc.	5	2
CC/SEM-3/ CEMA	CC-3-7-TH	Organic	Carbonyl compounds	5	3

		chemistry-3			
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbocycle, heterocyclic stereochemistry	5	2
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
SEC / SEM-3/CEMA	SEC-A2	Analytical clinical biochemistry	Carbohydrates, Proteins, enzymes, lipids	5	1
GE / SEM-3/CEMG	CC/GE-3TH	Org., Inorg, Physical Chemistry	Electrochemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	Bonding and physical properties	5	1
CC/SEM-3/ CEMA	CC-3-7-TH	Organic Chemistry-3	Organometallics, nucleophilic addition to $\alpha,\beta$ -unsaturated C=O compounds.	5	1
DSE/SEM-5/ CEMA	DSE-A2 TH	Application of computer in chemistry	Introduction to spread sheet software	5	2
DSE/SEM-5/ CEMA	DSE-A2 TH	Computer Lab.	Application of spread sheet MS Excell in physical chemistry experiment	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical Lab	Computer programs based on numerical methods	5	4
GE / SEM-1/CEMG	CC/GE-1TH	Org., Inorg, Physical Chemistry	Atomic structure, periodicity, acids and bases.	5	1
GE / SEM-1/CEMG	CC/GE-1PR	Inorganic Lab	Inorganic estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-2-TH	Physical Chemistry-1	Kinetic theory and gaseous state	5	3
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Simple physical chemistry experiments	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical thermodynamics-1 and 2, systems of variable composition	5	1
CC/SEM-3/ CEMA	CC-3-5-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Quantum chemistry-II	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical lab.	Computer programming	5	4
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Statistical analysis	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 20 to Dec. 20**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab. 1A	Acid base and redox titration	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical equilibrium, electrochemistry	5	1
SEC/SEM-3/ CEMA	SEC-A2	Analytical clinical biochemistry	Lipoproteins, DNA, RNA, Biochemistry of diseases, blood and urine analysis	5	1
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Statistical thermodynamics, numerical analysis	5	2
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Fortran programming	5	1
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbohydrates and biomolecules	5	1
GE/SEM-1/CEMG	CC/GE-1 TH	Inorganic, organic, physical	Chemical kinetics and liquid	5	1

		chemistry			
GE/SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Inorganic estimation	5	2
GE/SEM-3/CEMG	CC/GE-3 TH	Inorganic, organic, physical chemistry	Aromatic hydrocarbon, organometallics, aryl halides	5	1
GE/SEM-3/CEMG	CC/GE-3 PR	Inorganic Lab.	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-I- ionic and covalent. Chemical bonding-II metallic bond and weak chemical forces	5	2
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Chemistry of d and f block, reaction kinetics and inorganic reaction mechanism	5	2
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	The principles of qualitative analysis, catalysis by organometallic compounds.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-II, MOT, radioactivity	5	1
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Coordination chemistry-II, VBT, CFT, MO, magnetism and colour.	5	1
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	Bio-inorganic and organometallic chemistry.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4
GE / SEM-4 / CEMG	CC/GE-4	Inorg. Phy. Organic chemistry	CFT and quantum chemistry	5	1
GE / SEM-4 / CEMG	CC/GE-4 PR	Org.Lab.	Organic qualitative analysis	5	2



## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Substitution and elimination reactions	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	4
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Nitrogen compounds	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Alkaloids and terpenoids	5	1
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Chemical thermodynamics, chemical equilibrium, solutions, error analysis	5	1
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Stereochemistry-II, Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Retrosynthesis, asymmetric synthesis etc.	5	1
SEC / SEM-4/CEMA	SEC-B3	Pharmaceutical chemistry	Drugs, pharmaceuticals, fermentations	5	3
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Introduction to green chemistry, principles of green chemistry, designing of synthesis	5	2
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	4
GE / SEM-4/CEMG	CC/GE-4 TH	Org., Inorg, Physical Chemistry	Carboxylic acids, amines, aminoacids , carbohydrates	5	2
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Rearrangement reactions	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab.-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	3
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Phase equilibrium, solid, aliphatic compounds, redox reactions	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Foundation of quantum mechanics, crystal structure	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-6/CEMA	CC-6-14-TH	Physical Chemistry-5	Molecular spectroscopy, photochemistry, theory of reaction rate	5	1
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

# Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 21 to June 21**

**Name of the teacher: DR. SUDESHNA SAWOO**

<b>Course type (CC/ GE/SEC/AECC/DS E)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes / week</b>
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Colligative properties, phase equilibrium	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	2
CC/SEM-6/CEMA	CC-6-14- TH	Physical Chemistry-5	Surface tension, adsorption, colloids	5	2
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Examples of green synthesis, future trends in green chemistry	5	2
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	1
GE/SEM-4/CEMG	CC/GE-4	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Acid base, redox reaction and solubility	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Noble gases, inorganic polymers, coordination chemistry I	5	2
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Fertilizers, batteries, alloys, catalysis, chemical explosives	5	2
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Atomic structure and electroanalytical method.	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Chemical periodicity and s, p block elements	5	1
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Glass, ceramic, cement, paint, pigment metal coating etc.	5	3
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2
GE / SEM-3 / CEMG	CC/GE-3	Inorg. Phy. Organic chemistry	Chemical bonding and p- and d-block elements, coordination chemistry.	5	2
GE / SEM-3 / CEMG	CC/GE-3 PR	Inorganic Practical	Qualitative inorganic analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	General Treatment of Reaction Mechanism I	5	1
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	1
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	General Treatment of Reaction Mechanism II	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Pericyclic reactions	5	1
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
GE / SEM-1/CEMG	CC/GE-1	Org., Inorg, Physical Chemistry	Fundamentals of organic chemistry, stereochemistry, SN1, SN2, E1, E2	5	3
GE / SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Quantitative estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	2
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	Stereochemistry-I	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Kinetics, viscosity etc.	5	2
CC/SEM-3/ CEMA	CC-3-7-TH	Organic chemistry-3	Carbonyl compounds	5	3

CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbocycle, heterocyclic stereochemistry	5	2
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
SEC / SEM-3/CEMA	SEC-A2	Analytical clinical biochemistry	Carbohydrates, Proteins, enzymes, lipids	5	1
GE / SEM-3/CEMG	CC/GE-3TH	Org., Inorg, Physical Chemistry	Electrochemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	Bonding and physical properties	5	1
CC/SEM-3/ CEMA	CC-3-7-TH	Organic Chemistry-3	Organometallics, nucleophilic addition to $\alpha,\beta$ -unsaturated C=O compounds.	5	1
DSE/SEM-5/ CEMA	DSE-A2 TH	Application of computer in chemistry	Introduction to spread sheet software	5	2
DSE/SEM-5/ CEMA	DSE-A2 TH	Computer Lab.	Application of spread sheet MS Excell in physical chemistry experiment	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical Lab	Computer programs based on numerical methods	5	4
GE / SEM-1/CEMG	CC/GE-1TH	Org., Inorg, Physical Chemistry	Atomic structure, periodicity, acids and bases.	5	1
GE / SEM-1/CEMG	CC/GE-1PR	Inorganic Lab	Inorganic estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-2-TH	Physical Chemistry-1	Kinetic theory and gaseous state	5	3
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Simple physical chemistry experiments	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical thermodynamics-1 and 2, systems of variable composition	5	1
CC/SEM-3/ CEMA	CC-3-5-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Quantum chemistry-II	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical lab.	Computer programming	5	4
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Statistical analysis	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 21 to Dec. 21**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab. 1A	Acid base and redox titration	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical equilibrium, electrochemistry	5	1
SEC/SEM-3/ CEMA	SEC-A2	Analytical clinical biochemistry	Lipoproteins, DNA, RNA, Biochemistry of diseases, blood and urine analysis	5	1
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Statistical thermodynamics, numerical analysis	5	2
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Fortran programming	5	1
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbohydrates and biomolecules	5	1
GE/SEM-1/CEMG	CC/GE-1 TH	Inorganic, organic, physical	Chemical kinetics and liquid	5	1



		chemistry			
GE/SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Inorganic estimation	5	2
GE/SEM-3/CEMG	CC/GE-3 TH	Inorganic, organic, physical chemistry	Aromatic hydrocarbon, organometallics, aryl halides	5	1
GE/SEM-3/CEMG	CC/GE-3 PR	Inorganic Lab.	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-I- ionic and covalent. Chemical bonding-II metallic bond and weak chemical forces	5	2
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Chemistry of d and f block, reaction kinetics and inorganic reaction mechanism	5	2
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	The principles of qualitative analysis, catalysis by organometallic compounds.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-II, MOT, radioactivity	5	1
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Coordination chemistry-II, VBT, CFT, MO, magnetism and colour.	5	1
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	Bio-inorganic and organometallic chemistry.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4
GE / SEM-4 / CEMG	CC/GE-4	Inorg. Phy. Organic chemistry	CFT and quantum chemistry	5	1
GE / SEM-4 / CEMG	CC/GE-4 PR	Org.Lab.	Organic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Substitution and elimination reactions	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	4
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Nitrogen compounds	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Alkaloids and terpenoids	5	1
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Chemical thermodynamics, chemical equilibrium, solutions, error analysis	5	1
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Stereochemistry-II, Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Retrosynthesis, asymmetric synthesis etc.	5	1
SEC / SEM-4/CEMA	SEC-B3	Pharmaceutical chemistry	Drugs, pharmaceuticals, fermentations	5	3
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Introduction to green chemistry, principles of green chemistry, designing of synthesis	5	2
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	4
GE / SEM-4/CEMG	CC/GE-4 TH	Org., Inorg, Physical Chemistry	Carboxylic acids, amines, aminoacids , carbohydrates	5	2
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Rearrangement reactions	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab.-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	3
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Phase equilibrium, solid, aliphatic compounds, redox reactions	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Foundation of quantum mechanics, crystal structure	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-6/CEMA	CC-6-14-TH	Physical Chemistry-5	Molecular spectroscopy, photochemistry, theory of reaction rate	5	1
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

# Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 22 to June 22**

**Name of the teacher: DR. SUDESHNA SAWOO**

<b>Course type (CC/ GE/SEC/AECC/DS E)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes / week</b>
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Colligative properties, phase equilibrium	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	2
CC/SEM-6/CEMA	CC-6-14- TH	Physical Chemistry-5	Surface tension, adsorption, colloids	5	2
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Examples of green synthesis, future trends in green chemistry	5	2
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	1
GE/SEM-4/CEMG	CC/GE-4	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Acid base, redox reaction and solubility	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Noble gases, inorganic polymers, coordination chemistry I	5	2
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Fertilizers, batteries, alloys, catalysis, chemical explosives	5	2
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-TH	Inorganic Chemistry-1	Atomic structure and electroanalytical method.	5	1
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab-1a	Acid base, redox titration	5	4
CC/SEM-3/ CEMA	CC-3-6-TH	Inorganic Chemistry-3	Chemical periodicity and s, p block elements	5	1
CC/SEM-3/ CEMA	CC-3-6-PR	Inorganic Lab-3	Complexometry, gravimetry, chromatography of metal ions	5	4
DSE /SEM-5 / CEMA	DSE-B1	Industrial Chemistry	Glass, ceramic, cement, paint, pigment metal coating etc.	5	3
DSE /SEM-5 / CEMA	DSE-B1-PR	Industrial Chemistry Practical	Analysis of fertilizers, dolomite, cement, alloy. Electroless metallic coating, preparation of pigment	5	2
GE / SEM-3 / CEMG	CC/GE-3	Inorg. Phy. Organic chemistry	Chemical bonding and p- and d-block elements, coordination chemistry.	5	2
GE / SEM-3 / CEMG	CC/GE-3 PR	Inorganic Practical	Qualitative inorganic analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	General Treatment of Reaction Mechanism I	5	1
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	1
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	General Treatment of Reaction Mechanism II	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Pericyclic reactions	5	1
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
GE / SEM-1/CEMG	CC/GE-1	Org., Inorg, Physical Chemistry	Fundamentals of organic chemistry, stereochemistry, SN1, SN2, E1, E2	5	3
GE / SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Quantitative estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-PR	Organic Lab-1A	Separation of binary mixture based upon solubility,	5	2
CC/SEM-1/ CEMA	CC-1-2-TH	Organic Chemistry-1B	Stereochemistry-I	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Organic Lab-1B	Determination of boiling point of common organic liquid compounds	5	1
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Kinetics, viscosity etc.	5	2

CC/SEM-3/ CEMA	CC-3-7-TH	Organic chemistry-3	Carbonyl compounds	5	3
CC/SEM-3/ CEMA	CC-3-7-PR	Organic Lab-3	Identification of pure organic compound and Estimation	5	2
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbocycle, heterocyclic stereochemistry	5	2
CC/SEM-5/ CEMA	CC-5-12-PR	Organic Lab-5	Chromatography and spectroscopic analysis of organic compounds	5	2
SEC / SEM-3/CEMA	SEC-A2	Analytical clinical biochemistry	Carbohydrates, Proteins, enzymes, lipids	5	1
GE / SEM-3/CEMG	CC/GE-3TH	Org., Inorg, Physical Chemistry	Electrochemistry	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1A-TH	Organic Chemistry-1A	Bonding and physical properties	5	1
CC/SEM-3/ CEMA	CC-3-7-TH	Organic Chemistry-3	Organometallics, nucleophilic addition to $\alpha,\beta$ -unsaturated C=O compounds.	5	1
DSE/SEM-5/ CEMA	DSE-A2 TH	Application of computer in chemistry	Introduction to spread sheet software	5	2
DSE/SEM-5/ CEMA	DSE-A2 TH	Computer Lab.	Application of spread sheet MS Excell in physical chemistry experiment	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical Lab	Computer programs based on numerical methods	5	4
GE / SEM-1/CEMG	CC/GE-1TH	Org., Inorg, Physical Chemistry	Atomic structure, periodicity, acids and bases.	5	1
GE / SEM-1/CEMG	CC/GE-1PR	Inorganic Lab	Inorganic estimation	5	2
GE / SEM-3/CEMG	CC/GE-3PR	Inorganic Lab	Inorganic qualitative analysis	5	2



## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-2-TH	Physical Chemistry-1	Kinetic theory and gaseous state	5	3
CC/SEM-1/ CEMA	CC-1-2-PR	Physical Lab.	Simple physical chemistry experiments	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical thermodynamics-1 and 2, systems of variable composition	5	1
CC/SEM-3/ CEMA	CC-3-5-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Quantum chemistry-II	5	2
CC/SEM-5/ CEMA	CC-5-11-PR	Physical lab.	Computer programming	5	4
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Statistical analysis	5	1

## Teaching Plan

**Department: CHEMISTRY**

**Session: July 22 to Dec. 22**

**Name of the teacher: DR. SUDESHNA SAWOO**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-1/ CEMA	CC-1-1-PR	Inorganic Lab. 1A	Acid base and redox titration	5	2
CC/SEM-3/ CEMA	CC-3-5-TH	Physical chemistry-2	Chemical equilibrium, electrochemistry	5	1
SEC/SEM-3/ CEMA	SEC-A2	Analytical clinical biochemistry	Lipoproteins, DNA, RNA, Biochemistry of diseases, blood and urine analysis	5	1
CC/SEM-5/ CEMA	CC-5-11-TH	Physical chemistry-4	Statistical thermodynamics, numerical analysis	5	2
DSE/SEM-5/CEMA	DSE-A2	Application of computer in chemistry	Fortran programming	5	1
CC/SEM-5/ CEMA	CC-5-12-TH	Organic chemistry-5	Carbohydrates and biomolecules	5	1
GE/SEM-1/CEMG	CC/GE-1 TH	Inorganic, organic, physical	Chemical kinetics and liquid	5	1

		chemistry			
GE/SEM-1/CEMG	CC/GE-1 PR	Inorganic Lab	Inorganic estimation	5	2
GE/SEM-3/CEMG	CC/GE-3 TH	Inorganic, organic, physical chemistry	Aromatic hydrocarbon, organometallics, aryl halides	5	1
GE/SEM-3/CEMG	CC/GE-3 PR	Inorganic Lab.	Inorganic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: MANISHA UKIL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-I- ionic and covalent. Chemical bonding-II metallic bond and weak chemical forces	5	2
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Chemistry of d and f block, reaction kinetics and inorganic reaction mechanism	5	2
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	The principles of qualitative analysis, catalysis by organometallic compounds.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. MONIRUL ISLAM**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2 / CEMA	CC-2-4-TH	Inorganic Chemistry-2	Chemical bonding-II, MOT, radioactivity	5	1
CC/SEM-2 / CEMA	CC-2-4-PR	Inorganic Lab-2	Iodo and iodimetric titration. Estimation of metal content in brass, steel and cement	5	4
CC/SEM-4/ CEMA	CC-4-10-TH	Inorganic Chemistry-4	Coordination chemistry-II, VBT, CFT, MO, magnetism and colour.	5	1
CC/SEM-4/ CEMA	CC-4-10-PR	Inorganic Lab-4	Inorganic preparation, and instrumental techniques.	5	4
CC/SEM-6/ CEMA	CC-6-13-TH	Inorganic Chemistry-5	Bio-inorganic and organometallic chemistry.	5	2
CC/SEM-6/ CEMA	CC-6-13-PR	Inorganic Lab-5	Inorganic qualitative analysis of unknown inorganic samples	5	4
GE / SEM-4 / CEMG	CC/GE-4	Inorg. Phy. Organic chemistry	CFT and quantum chemistry	5	1
GE / SEM-4 / CEMG	CC/GE-4 PR	Org.Lab.	Organic qualitative analysis	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. ANWESHA BHATTACHARYYA**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Substitution and elimination reactions	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	4
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Nitrogen compounds	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Alkaloids and terpenoids	5	1
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	2
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Chemical thermodynamics, chemical equilibrium, solutions, error analysis	5	1
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. DINESH CHANDRA GHOSH**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Stereochemistry-II, Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Retrosynthesis, asymmetric synthesis etc.	5	1
SEC / SEM-4/CEMA	SEC-B3	Pharmaceutical chemistry	Drugs, pharmaceuticals, fermentations	5	3
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Introduction to green chemistry, principles of green chemistry, designing of synthesis	5	2
DSE/SEM-6/ CEMA	DSE-A3 PR	Green Lab.	Organic reactions by green methods	5	4
GE / SEM-4/CEMG	CC/GE-4 TH	Org., Inorg, Physical Chemistry	Carboxylic acids, amines, aminoacids , carbohydrates	5	2
GE / SEM-4/CEMG	CC/GE-4 PR	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. NILASISH PAL**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-2/ CEMA	CC-2-3-TH	Organic Chemistry-2	Reaction mechanism-III	5	1
CC/SEM-2/ CEMA	CC-2-3-PR	Organic Lab-2	Preparation of organic compounds	5	2
CC/SEM-4/ CEMA	CC-4-8-TH	Organic Chemistry-4	Rearrangement reactions	5	1
CC/SEM-4/ CEMA	CC-4-8-PR	Organic Lab.-4	Qualitative analysis of solid organic compounds	5	4
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	3
GE / SEM-2/CEMG	CC/GE-2 TH	Org., Inorg, Physical Chemistry	Phase equilibrium, solid, aliphatic compounds, redox reactions	5	2
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

## Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. DIPANWITA GUHA BOSE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes / week
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Foundation of quantum mechanics, crystal structure	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	4
CC/SEM-6/CEMA	CC-6-14-TH	Physical Chemistry-5	Molecular spectroscopy, photochemistry, theory of reaction rate	5	1
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
GE / SEM-2/CEMG	CC/GE-2 PR	Physical Lab.	Simple physical experiments	5	4

# Teaching Plan

**Department: CHEMISTRY**

**Session: Jan. 23 to June 23**

**Name of the teacher: DR. SUDESHNA SAWOO**

<b>Course type (CC/ GE/SEC/AECC/DS E)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes / week</b>
CC/SEM-4/ CEMA	CC-4-9-TH	Physical Chemistry-3	Colligative properties, phase equilibrium	5	3
CC/SEM-4/ CEMA	CC-4-9-PR	Physical Lab.	Physical chemistry experiments	5	2
CC/SEM-6/CEMA	CC-6-14- TH	Physical Chemistry-5	Surface tension, adsorption, colloids	5	2
CC/SEM-6/CEMA	CC-6-14-PR	Physical Lab.	Physical chemistry experiments	5	4
DSE/SEM-6/ CEMA	DSE-A3 TH	Green chemistry	Examples of green synthesis, future trends in green chemistry	5	2
DSE/SEM-6/ CEMA	DSE-B4	Dissertation	Review of topic chosen by each students	5	1
GE/SEM-4/CEMG	CC/GE-4	Organic Lab.	Qualitative analysis of solid organic compounds	5	2

## Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. Pijush kr. Basu				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
a) FRFSA	DSE 6.1 A	HOLDING COMPANY	JAN- JUNE	60
b) CORPORATE ACCOUNTING	DSE 5.2 A	VALUATION OF SHARE & GOODWILL	JULY - DECEMBER	62
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	PROFITS OR GAINS FROM BUSINESS OR PROFESSION	JAN- JUNE	60
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	BRANCH ACCOUNTING	JULY - DECEMBER	58
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	COSH SHEET	JAN- JUNE	64
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	FINAL ACCOUNT	JULY - DECEMBER	68

Name of the teacher: Prof. Apurba kr. Kundu				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
a) FRFSA	DSE 6.1 A	CASHFLOW STATEMENT	JAN- JUNE	58
b) CORPORATE ACCOUNTING	DSE 5.2 A	ISSUE OF EQUITY SHARE	JULY - DECEMBER	61
COST & MANAGEMENT ACCOUNTING II	CC 4.1 Ch & CC 4.1 Cg	MARGINAL COSTING	JAN- JUNE	65
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	DEPARTMENTAL ACCOUNTING	JULY - DECEMBER	64

COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	LABOUR	JAN- JUNE	62
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	CONSIGNMENT	JULY - DECEMBER	70

Name of the teacher: Prof. Santanu Mallick				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
a) Financial Management	DSE 6.2 A	LEVERAGE	JAN- JUNE	56
b) TAXATION II	DSE 5.1 A	GST	JULY - DECEMBER	62
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	SALARY	JAN- JUNE	65
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	INVESTMENT ACCOUNTING	JULY - DECEMBER	60
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	OVERHEAD DISTRIBUTION	JAN- JUNE	59
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	SELF LEDGER BALANCING	JULY - DECEMBER	66

## Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. Shuvendu Roychowdhury				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
Financial Management	DSE 6.2 A	DIVIDEND POLICY	JAN- JUNE	56
TAXATION II	DSE 5.1 A	TOTAL INCOME COMPUTATION	JULY - DECEMBER	62
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	INCOME FROM HOUSE PROPERTY	JAN- JUNE	58
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	HIRE PURCHASE	JULY - DECEMBER	64
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	CONTRACT COSTING	JAN- JUNE	62
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	INSURANCE CLAIM	JULY - DECEMBER	65

Name of the teacher: Prof. Arup Maity				
Course type (CC/SEC/DSE)	Paper	Unit name	Month	No. of classes
FINANCIAL MANAGEMENT	DSE 6.2 A	SOURCE OF CAPITAL	JAN- JUNE	50
CORPORATE ACCOUNTING	DSE 5.2 A	RIGHT AND BONUS SHARE	JULY - DECEMBER	61
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	RESIDENTIAL STATUS & INTRODUCTION	JAN- JUNE	58
INFORMATION TECHNOLOGY	SEC 3.1 Chg	Module I	JULY - DECEMBER	60

COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	MATERIAL COSTING	JAN- JUNE	62
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	ACCOUNTING THEORIES	JULY - DECEMBER	70

Name of the teacher: Prof. Debasish Chanda				
Course type (CC/GE/DSE)	Paper	Unit name	Month	No. of classes
FRPSA	DSE 6.2 A	Accounting Standards	JAN- JUNE	56
CORPORATE ACCOUNTING	DSE 5.2 A	REDEMPTION OF PREFERENCE SHARE	JULY - DECEMBER	64
Entrepreneurship Development and Business Ethics	CC 4.1 Chg	MODULE I - UNIT 1 & 2	JAN- JUNE	53
Indian Financial System	CC3.2 Ch	Financial System and its Components	JULY - DECEMBER	60
E-Commerce & Business Communication	GE 2.1 Chg	Types of Communication	JAN- JUNE	52
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	DEPRECIATION & RECTIFICATION OF ENTRIES	JULY - DECEMBER	69



## Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. Sanjiv Jaiswal				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
Financial Management	DSE 6.2 A	CAPITAL BUDGETING	JAN- JUNE	62
TAXATION II	DSE 5.1 A	FILING OF RETURN	JULY - DECEMBER	62
COST & MANAGEMENT ACCOUNTING II	CC 4.2 Ch & CC 4.2 Cg	JOINT AND BY PRODUCT	JAN- JUNE	55
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	ADMISSION, RETIREMENT, DEATH OF PARTNER	JULY - DECEMBER	60
Company Law	CC2.1 Chg	CORPORATE MEETINGS	JAN- JUNE	65
Business Laws	CC 1.1 Chg	Consumers Protection Act	JULY - DECEMBER	65

Name of the teacher: Prof. Animesh chandra Paul				
Course type (CC/GE/DSE)	Paper	Unit name	Month	No. of classes
FRFSA	DSE 6.2 A	FUND FLOW STATEMENT	JAN- JUNE	62
AUDITING & ASSURANCE	CC 5.1 Ch	AUDIT PROCEDURES AND TECHNIQUES	JULY - DECEMBER	61
Entrepreneurship Development and Business Plan	CC 4.1 Chg	MODULE I - UNIT 3 & 4	JAN- JUNE	64
Indian Financial System	CC3.2 Ch	Financial Markets	JULY - DECEMBER	60



E-Commerce & Business Communication	GE 2.1 Chg	ERP & E-CRM and SCM	JAN- JUNE	60
Principles of Management	CC 1.2 Chg	Motivation, Co-ordination and Control	JULY - DECEMBER	59

Name of the teacher: Prof. RUPAM BASU				
Course type (CC/GE/DSE)	Paper	Unit name	Month	No. of classes
Financial Management	DSE 6.2 A	TIME VALUE OF MONEY	JAN- JUNE	60
AUDITING & ASSURANCE	CC 5.1 Ch	COMPANY AUDIT & AUDIT REPORT AND CERTIFICATE	JULY - DECEMBER	60
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	SET OFF, DEDUCTIONS U/S 80, INCOME FROM OTHER SOURCES	JAN- JUNE	61
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	DISSOLUTION & PEECE MEAL DISTRIBUTION	JULY - DECEMBER	65
E-Commerce & Business Communication	GE 2.1 Chg	Drafting & Tools of Communication	JAN- JUNE	55
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	SINGLE ENTRY	JULY - DECEMBER	68

# Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. RITWIK HALDER				
Course type (CC)	Paper	Unit name	Month	No. of classes
Entrepreneurship Development and Business Ethics	CC 4.1 Chg	MODULE II - UNIT 1 & 2	JAN- JUNE	50
Company Law	CC2.1 Chg	FORMATION OF A COMPANY & COMPANY ADMINISTRATION	JAN- JUNE	80
Business Laws	CC 1.1 Chg	The Indian Contract Act	JULY - DECEMBER	72

Name of the teacher: Prof. AVIK CHATTOPADHAY				
Course type (CC)	Paper	Unit name	Month	No. of classes
Entrepreneurship Development and Business Ethics	CC 4.1 Chg	MODULE II - UNIT 3 & 4	JAN- JUNE	70
Marketing Management and Human Resource Management	CC 2.2 Chg	Consumer Behaviour and Market segmentation:	JAN- JUNE	72
Principles of Management	CC 1.2 Chg	Organizing & Directing and Staffing.	JULY - DECEMBER	70

Name of the teacher : Prof. Pulkit Agrawal				
Course type (GE/DSE)	Paper	Unit name	Month	No. of classes

Macroeconomics	DSE 5.1 A	Money, Inflation and Unemployment & Introduction	JULY - DECEMBER	66
Microeconomics-II & Indian Economy	GE 4.1 Chg	MODULE I	JAN- JUNE	68
Microeconomics I	GE 1.1 Chg	Perfect Competition	JULY - DECEMBER	77

Name of the teacher: Prof. Surajit Bhattacharyya				
Course type (GE/DSE)	Paper	Unit name	Month	No. of classes
Advanced Business Mathematics	CC 4.1 Chg	Functions, Limit and Continuity	JAN- JUNE	59
Business Mathematics & Statistics	GE 3.3 Chg	Permutations and Combinations & Time Series Analysis, Probability Theory	JAN- JUNE	74
Statistics	GE 1.1 Chg	Fundamentals, Measures of Central Tendency	JULY - DECEMBER	72

Name of the teacher: Prof. Arup kr. Samui				
Course type (GE/DSE)	Paper	Unit name	Month	No. of classes
Advanced Business Mathematics	CC 4.1 Chg	Applications of Derivative and Integration, Differentiation and Integration	JAN- JUNE	59
Business Mathematics & Statistics	GE 3.3 Chg	Set Theory, Binomial Theorem, Logarithm	JAN- JUNE	72
Statistics	GE 1.1 Chg	Moments, Skewness and Kurtosis	JULY - DECEMBER	70

Name of the teacher : Prof. Jayanta Kamilya				
Course type (GE/DSE)	Paper	Unit name	Month	No. of classes

Advanced Business Mathematics	DSE 5.1 A	Determinants, Matrix	JULY - DECEMBER	57
Business Mathematics & Statistics	GE 3.3 Chg	Correlation and Association, Regression Analysis, Index Numbers	JAN- JUNE	73
Statistics	GE 1.1 Chg	Measures of Dispersion & Interpolation	JULY - DECEMBER	77

Name of the teacher: Prof. Sangita Sen				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
FRSA	DSE 6.1 A	RATIO ANALYSIS	JAN- JUNE	56
CORPORATE ACCOUNTING	DSE 5.2 A	INTERNAL RECONSTRUCTION	JULY- DECEMBER	62
COST & MANAGEMENT ACCOUNTING II	CC 4.2 Ch & CC 4.2 Cg	CASH BUDGET & FLEXIBLE BUDGET	JAN- JUNE	58
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	PRE & POST INCORPORATION	JULY- DECEMBER	60
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	Process Costing	JAN- JUNE	70
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	Receipts & Payments Accounting	JULY- DECEMBER	72

Name of the teacher: Prof. Sutishna Sarkar				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
FRSA	DSE 6.1 A	introduction to Financial Statements Analysis	JAN- JUNE	63
CORPORATE ACCOUNTING	DSE 5.2 A	Company Final Accounts	JULY- DECEMBER	59

COST & MANAGEMENT ACCOUNTING II	CC 4.2 Ch & CC 4.2 Cg	Standard Costing	JAN- JUNE	56
FINANCIAL ACCOUNTING II	CC3.1 Ch & CC3.1 Cg	Business Acquisition and Conversion	JULY- DECEMBER	55
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	Operating Costing	JAN- JUNE	64
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	Accounting on sales or return basis goods.	JULY- DECEMBER	66

Name of the teacher : Prof. Arunima Rudra				
Course type (CC/SEC/DSE)	Paper	Unit name	Month	No. of classes
COMPUTERISED ACCOUNTING SYSTEM and E- FILING OF TAX RETURN	SEC 6.1Chg	Designing Computerized Accounting System	JAN- JUNE	61
CORPORATE ACCOUNTING	DSE 5.2 A	Company Merger	JULY- DECEMBER	65
COST & MANAGEMENT ACCOUNTING II	CC 4.2 Ch & CC 4.2 Cg	Activity Based Costing	JAN- JUNE	57
Information Technology & its Application in Business	SEC 3.1 Chg	Module II	JULY- DECEMBER	68
COST & MANAGEMENT ACCOUNTING I	CC 2.1Ch & CC 2.1Cg	BATCH COSTING	JAN- JUNE	60
FINANCIAL ACCOUNTING I	CC 1.1 Ch & CC 1.1 Cg	VALUATION OF INVENTORIES	JULY- DECEMBER	66

## Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. Ashirbani Bardhan				
Course type (CC/SEC/GE/DSE)	Paper	Unit name	Month	No. of classes
COMPUTERISED ACCOUNTING SYSTEM and E-FILING OF TAX RETURN	SEC 6.1Chg	E-filing of Tax return	JAN- JUNE	60
FINANCIAL Management	DSE 6.2 A	COST OF CAPITAL, WORKING CAPITAL	JULY - DECEMBER	62
TAXATION I	CC 4.1 Ch & CC 4.1 Cg	CAPITAL GAINS, DEDUCTIONS U/S 80	JAN- JUNE	58
Information Technology & its Application in Business	SEC 3.1 Chg	MODULE II	JULY - DECEMBER	68
E-Commerce	GE 2.1 Chg	New Trends in E-Commerce, Digital Payment	JAN- JUNE	61

Name of the teacher: Prof. Satabdi Dey				
Course type (CC/DSE)	Paper	Unit name	Month	No. of classes
COMPUTERISED ACCOUNTING SYSTEM and E-FILING OF TAX RETURN	SEC 6.1Chg	Computerized Accounting Package	JAN- JUNE	65
Auditing & Assurance	CC 5.1Ch	CONCEPT, NEED AND PURPOSE OF AUDIT, AUDIT PROCEDURES AND TECHNIQUES	JULY - DECEMBER	58

Indian Financial System	CC3.2 Ch	Financial Institutions	JULY - DECEMBER	55
Company Law	CC2.1 Chg	SHARE CAPITAL & DEBENTURE	JAN- JUNE	64
Business Laws	CC 1.1 Chg	The Negotiable Instruments Act 1881	JULY - DECEMBER	66

**Name of the teacher : Prof. Sreemoyee Dutta**

<b>Course type (CC/SEC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Month</b>	<b>No. of classes</b>
Auditing & Assurance	CC 5.1Ch	OTHER THRUST AREAS, VOUCHING, VERIFICATION AND VALUATION	JULY - DECEMBER	<b>52</b>
Indian Financial System	CC3.2 Ch	Investors' Protection, Financial Services	JULY - DECEMBER	<b>50</b>
Company Law	CC2.1 Chg	FORMATION OF A COMPANY[	JAN- JUNE	<b>64</b>
Business Laws	CC 1.1 Chg	The Limited Liability Partnership Act, 2008	JULY - DECEMBER	<b>66</b>

**Name of the teacher : Prof. Debaleena Dutta**

<b>Course type (CC)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Month</b>	<b>No. of classes</b>
Company Law	CC2.1 Chg	INTRODUCTION TO COMPANY	JAN- JUNE	<b>66</b>
Business Laws	CC 1.1 Chg	The Sale of Goods Act, 1930, Partnership Laws	JULY - DECEMBER	<b>68</b>

## Teaching Plan

Department: COMMERCE EVENING SHIFT

SESSION : 2018 TO 2023

Name of the teacher: Prof. Koyel Chakraborty				
Course type (GE/DSE)	Paper	Unit name	Month	No. of classes
Macroeconomics	DSE 5.1 A	National Income Accounting, Determination of Equilibrium Level of National Income	JAN- JUNE	60
Microeconomics-II & Indian Economy	GE 4.1 Chg	MODULE - II	JAN- JUNE	70
Microeconomics I	GE 1.1 Chg	Production and Cost, Demand and Consumer behaviour	JULY - DECEMBER	72

Name of the teacher: Prof. Mahasweta Chakraborty				
Course type (CC)	Paper	Unit name	Month	No. of classes
Entrepreneurship Development	CC 4.1 Chg	Ethics & Corporate Governance, Corporate Culture	JAN- JUNE	67
Marketing Management and Human Resource Management	CC 2.2 Chg	Training and Development, Recruitment and Selection	JAN- JUNE	64
Principles of Management	CC 1.2 Chg	Introduction, Organizing	JULY - DECEMBER	66

Name of the teacher : Prof. Indrani Majumder				
Course type (CC)	Paper	Unit name	Month	No. of classes



Entrepreneurship Development	CC 4.1 Chg	Ethics in Management, Principles of Business Ethics, Business Ethics	JULY - DECEMBER	62
Marketing Management and Human Resource Management	CC 2.2 Chg	Product, Pricing, Distribution Channels, Job Evaluation and Performance Appraisal Physical Distribution,	JAN- JUNE	70
Principles of Management	CC 1.2 Chg	Motivation, Co-ordination and Control, Directing and Staffing:	JULY - DECEMBER	74

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

**Department:** Computer Science  
**Name of the teacher:** Pritam Ghosh

**Session: 2018-19**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> CC	CMS-A-CC-1-2-TH & CMS-A-CC-1-2-P	Programming Fundamentals using C	C Programming elements, Statements, Functions, Pointers, File Access:	Jul 18-Dec-18	20
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Jul 18-Dec-18	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
Part-II(H)	Paper : III	Group – A Graph Theory	<b>Graph Theory</b> Basic Terminology, Models and Types, Multi graphs and Weighted graphs, GraphRepresentation, Graph Isomorphism, Connectivity, Euler and Hamiltonian Paths and Circuits, Planar Graphs, Trees and their basic terminologies and properties.	Jul 18- Mar-19	12
	Paper : IVB	SEC- II: Data Structure using C	Linklist,Stacks,Trees, Hashing		24
Part-II(G)	Paper : III	Practical : Microsoft office,C prog & SQL	Word,Excel & Powerpoint, General C prog and Application and execution of Query through SQL		24
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 18- Mar-19	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Jan 19 – May19	20(TH) & 20(P)
<b>SEM-2 :</b> GE	CMS-G-CC-2-2-P	Programming using C	General C Prog	Jan 19 – May19	24



S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

### Teaching Plan

**Department:** Computer Science

**Session: 2019-20**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> CC	CMS-A-CC-1-2-TH & CMS-A-CC-1-2-P	Programming Fundamentals using C	C Programming elements, Statements, Functions, Pointers, File Access:	Jul 19-Dec-19	20(TH) & 20(P)
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Jul 19-Dec-19	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS Organization, Process, Deadlock	Aug 19-Dec-19	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Aug 19-Dec-19	20
<b>SEM-3 :</b> GE	CMS-G-CC-3-3-P	Programming using Python	Open Source Computer Programming Language Python 3	Jul 19-Dec-19	20
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 19- Mar 20	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department:**        **Computer Science**

**Session: 2019-20**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Mar 20 – Jun 20	16(TH) &160(P)
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-P	Programming using C	General C Prog	Mar 20 – Jun 20	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques(Except Greedy & DP)Graph Representation and Algorithm(Except Kruskal & Prims	Feb 20 – Jun 20	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 20 – Jun 20	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System Organization, Process	Feb 20 – Jun 20	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department:**          **Computer Science**                      **Session: 2020-21**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> CC	CMS-A-CC-1-2-TH & CMS-A-CC-1-2-P	Programming Fundamentals using C	C Programming elements, Statements, Functions, Pointers, File Access:	Sep 20-Jan-21	12(TH) & 20(P)
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Sep 20-Jan-21	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS Organization, Process, Deadlock	Sep 20-Dec-20	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Sep 20-Dec-20	20
<b>SEM-3 :</b> GE	CMS-G-CC-3-3-P	Programming using Python	Open Source Computer Programming Language Python 3	Sep 20-Dec-20	20
<b>SEM-5 :</b> CC	CMS-A-CC-5-11-TH	Database Management system (DBMS)	Introduction, Entity Relationship(ER) Modeling,SQL	Aug 20-Dec-20	12
	CMS-A-CC-5-11-P	Relational Database Management System	RDBMS Lab using My SQL & PHP		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department: Computer Science**

**Session: 2020-21**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Mar 21 – Jun 21	16(TH) &160(P)
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-P	Programming using C	General C Prog	Mar 21 – Jun 21	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques(Except Greedy & DP)Graph Representation and Algorithm(Except Kruskal & Prims	Mar 21 – Jun 21	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Mar 21 – Jun 21	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System Organization, Process	Mar 21 – Jun 21	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30
<b>SEM-6 :</b> CC	CMS-A-CC-6-13-TH	Software Engineering	Software Life Cycle, Software Requirement and Specification Analysis, Software Quality Assurances	Feb 21 – May 21	20
	CMS-A-CC-6-13-P	Project Work	Alloted project by departmental students		12

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

**Teaching Plan**

**Department:**        **Computer Science**

**Session: 2021-22**

**Name of the teacher: Pritam Ghosh**

<b>Course type (CC/ GE/SEC/ AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
<b>SEM-1 : CC</b>	CMS-A-CC-1-2-TH & CMS-A-CC-1-2-P	Programming Fundamentals using C	C Programming elements, Statements, Functions, Pointers, File Access:	Sep 21-Jan-22	12(TH) & 20(P)
<b>SEM-1 : GE</b>	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Sep 21-Jan-22	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 : CC</b>	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS Organization, Process, Deadlock	Sep 21-Jan-22	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Sep 21-Jan-22	20
<b>SEM-3 : GE</b>	CMS-G-CC-3-3-P	Programming using Python	Open Source Computer Programming Language Python 3	Sep 21-Jan-22	20
<b>SEM-5 : CC</b>	CMS-A-CC-5-11-TH	Database Management system (DBMS)	Introduction, Entity Relationship(ER) Modeling,SQL	Aug 21-Dec-21	12
	CMS-A-CC-5-11-P	Relational Database Management System	RDBMS Lab using My SQL & PHP		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department:** Computer Science

**Session:** 2021-22

**Name of the teacher:** Pritam Ghosh

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Mar 22 – Jun 22	16(TH) &160(P)
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-P	Programming using C	General C Prog	Mar 22 – Jun 22	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques(Except Greedy & DP)Graph Representation and Algorithm(Except Kruskal & Prims	Feb 22 – Jun 22	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 22 – Jun 22	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4-TH	Operating Systems	Introduction, Operating System Organization, Process	Feb 22 – Jun 22	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30
<b>SEM-6 :</b> CC	CMS-A-CC-6-13-TH	Software Engineering	Software Life Cycle, Software Requirement and Specification	Feb 22 – Jun 22	20

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

			Analysis, Software Quality Assurances		
	CMS-A-CC-6-13-P	Project Work	Alloted project by departmental students		12

## Teaching Plan

**Department:**        **Computer Science**

**Session: 2022-23**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> CC	CMS-A-CC-1-2-TH & CMS-A-CC-1-2-P	Programming Fundamentals using C	C Programming elements, Statements, Functions, Pointers, File Access:	Sep 22-Jan-23	12(TH) & 20(P)
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Sep 22-Jan-23	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS Organization, Process, Deadlock	Sep 22-Jan-23	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Sep 22-Jan-23	20
<b>SEM-3 :</b> GE	CMS-G-CC-3-3-P	Programming using Python	Open Source Computer Programming Language Python 3	Sep 22-Jan-23	20
<b>SEM-5 :</b> CC	CMS-A-CC-5-11-TH	Database Management system (DBMS)	Introduction, Entity Relationship(ER) Modeling,SQL	Sep 22-Jan-23	12
	CMS-A-CC-5-11-P	Relational Database Management System	RDBMS Lab using My SQL & PHP		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

**Teaching Plan**

**Department:** Computer Science

**Session: 2022-23**

**Name of the teacher: Pritam Ghosh**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Mar 23 – Jun 23	16(TH) &160(P)
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-P	Programming using C	General C Prog	Mar 23 – Jun 23	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques(Except Greedy & DP)Graph Representation and Algorithm(Except Kruskal & Prims	Feb 23 – Jun 23	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 23 – Jun 23	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System Organization, Process	Feb 23 – Jun 23	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w		30



S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

			VB & SQL		
<b>SEM-6 :</b> CC	CMS-A-CC-6-13-TH	Software Engineering	Software Life Cycle, Software Requirement and Specification Analysis, Software Quality Assurances	Feb 23 – Jun 23	20
	CMS-A-CC-6-13-P	Project Work	Alloted project by departmental students		12

# Teaching Plan

Session:2018

Department: Computer Science

Name of the teacher: Oindrilla Ghosh

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Third year	V (Theory)	Microprocess or and its Applications	Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	15
Third year	V (Practical)	Microprocess or	programming techniques of Microprocessor 8085	Jan-Jun	15
First year Hons	1 (Theory)	Basic Electronic Devices and Circuits,Digi tal Logic	Introduction to Computer Fundamentals, Number Systems,Boolean Algebra, Combinational Circuits, Sequential Circuit,Integrated Circuits (Concept only), Basics of Circuit Theory,Theory of Semiconductor devices,Diode and its applications, Bipolar Junction Transistor, Unipolar Junction Transistor, PNPN Devices,Operationa l Amplifiers (OPAMP),Timer,D ata Acquisition	Jan -Jun	32

First year Hons	1 (Practical)	Basic Electronic Devices and Circuits Lab,Digital Circuits	21 experiments	Jan -Jun	32
First year General	1 (Theory)	Computer Fundamentals and Digital Logic Design	Boolean Algebra,Combinational Circuits, Sequential Circuits	Jan -Jun	16
CMS-A-CC-1-1-TH	CC1	Digital Logic	Introduction to Computer Fundamentals, Number Systems,Boolean Algebra, Combinational Circuits, Sequential Circuit,Integrated Circuits (Concept only)	Jul-Dec	32
CMS-A-CC-1-1-P	CC1	Digital Circuits	Combinational Circuits,Sequential Circuits:	Jul-Dec	32
CMS-G-CC-1-1-TH	GE1	Computer Fundamentals and Digital Logic Design	Boolean Algebra,Combinational Circuits, Sequential Circuits	Jul-Dec	32
Third year Hons	V (Theory)	Microprocessor and its Applications	Introduction to Microcomputer based system,Microprocessor Architecture and Memory Interfacing,	Jul-Dec	15
Third year Hons	V (Practical)	Microprocessor	programming techniques of Microprocessor 8085	Jul-Dec	15

## Teaching Plan

**Session:2019**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Third year	V (Theory)	Microprocess or and its Applications	Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	15
Third year	V (Practical)	Microprocess or	programming techniques of Microprocessor 8085	Jan-Jun	15
CMS-A-CC-2-4- TH	CC4	Basic Electronic Devices and Circuits	Basics of Circuit Theory,Theory of Semiconductor devices,Diode and its applications, Bipolar Junction Transistor, Unipolar Junction Transistor, PNPN Devices,Operationa l Amplifiers (OPAMP),Timer,D ata Acquisition	Jan -Jun	32
CMS-A-CC-2-4- P	CC4	Basic Electronic	21 experiments	Jan -Jun	32

		Devices and Circuits Lab			
CMS-A-CC-1-1-TH	CC1	Digital Logic	Introduction to Computer Fundamentals, Number Systems, Boolean Algebra, Combinational Circuits, Sequential Circuit, Integrated Circuits (Concept only)	Jul-Dec	32
CMS-A-CC-1-1-P	CC1	Digital Circuits	Combinational Circuits, Sequential Circuits:	Jul-Dec	32
CMS-G-CC-1-1-TH	GE1	Computer Fundamentals and Digital Logic Design	Boolean Algebra, Combinational Circuits, Sequential Circuits	Jul-Dec	32
CMS-A-CC-3-5-TH	CC5	Computer Organization and Architecture	Basic Structure of Computers (Qualitative Discussion), Register Transfer and Micro-operation, Basic Computer Organization and Design, CPU Organization, Control Unit, CPU Registers, Instructions, CISC and RISC processors, Input / Output Organization	Jul-Dec	32
CMS-A-CC-3-5-P	CC5	Computer Organization Lab	19 experiments	Jul-Dec	32
Third year Hons	V (Theory)	Microprocessor and its Applications	Introduction to Microcomputer based system, Microprocessor Architecture	Jul-Dec	15

			and Memory Interfacing,		
Third year Hons	V (Practical)	Microprocess or	programming techniques of Microprocessor 8085	Jul-Dec	15

## Teaching Plan

Session:2020

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Third year	V (Theory)	Microprocess or and its Applications	Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	15
Third year	V (Practical)	Microprocess or	programming techniques of Microprocessor 8085	Jan_Jun	15
CMS-A-CC-2-4-TH	CC4	Basic Electronic Devices and Circuits	Basics of Circuit Theory, Theory of Semiconductor devices, Diode and	Jan -Jun	32

			its applications, Bipolar Junction Transistor, Unipolar Junction Transistor, PNPN Devices, Operational Amplifiers (OPAMP), Timer, Data Acquisition		
CMS-A-CC-2-4-P	CC4	Basic Electronic Devices and Circuits Lab	21 experiments	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		Introduction to Microcomputer based system, Microprocessor Architecture and Memory Interfacing, Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		programming techniques of Microprocessor 8085	Jan -Jun	32
CMS-A-CC-1-1-TH	CC1	Digital Logic	Introduction to Computer Fundamentals, Number Systems, Boolean Algebra, Combinational Circuits, Sequential Circuit, Integrated Circuits (Concept only)	Jul-Dec	32
CMS-A-CC-1-1-P	CC1	Digital Circuits	Combinational Circuits, Sequential Circuits:	Jul-Dec	32

CMS-G-CC-1-1-TH	GE1	Computer Fundamental s and Digital Logic Design	Boolean Algebra,Combinational Circuits, Sequential Circuits	Jul-Dec	32
CMS-A-CC-3-5-TH	CC5	Computer Organization and Architecture	Basic Structure of Computers (Qualitative Discussion), Register Transfer and Micro-operation, Basic Computer Organization and Design, CPU Organization, Control Unit, CPU Registers, Instructions, CISC and RISC processors, Input / Output Organization	Jul-Dec	32
CMS-A-CC-3-5-P	CC5	Computer Organization Lab	19 experiments	Jul-Dec	32
CMS-A-DSE-B--2-TH	DSE B2	Programmin g using Python 3	Introduction to the Python, Strings, Lists, Tuples, Conditionals, Iterators, and Generators, User-defined Functions and Recursion Functions: definition, function signature, User-defined Functions and Recursion, File Handling and Exception Handling,Unordere d data types - Sets and Dictionaries, Intro to Object	Jul-Dec	30



			Oriented Programming		
CMS-A-DSE-B--2-P	DSE B2	Python 3 Programming Lab.	Computation and Programming Using Python	Jul-Dec	20

,

## Teaching Plan

Session:2021

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CMS-A-CC-6-13, -P, CMS-A-CC-6-14, -P	CC13, CC14	Project	Python based project	Jan -Jun	16
CMS-A-CC-2-4-TH	CC4	Basic Electronic Devices and Circuits	Basics of Circuit Theory, Theory of Semiconductor devices, Diode and its applications, Bipolar Junction Transistor, Unipolar Junction Transistor, PNP Devices, Operationa	Jan -Jun	32

			l Amplifiers (OPAMP), Timer, Data Acquisition		
CMS-A-CC-2-4-P	CC4	Basic Electronic Devices and Circuits Lab	21 experiments	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		Introduction to Microcomputer based system, Microprocessor Architecture and Memory Interfacing, Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		programming techniques of Microprocessor 8085	Jan -Jun	32
CMS-A-CC-1-1-TH	CC1	Digital Logic	Introduction to Computer Fundamentals, Number Systems, Boolean Algebra, Combinational Circuits, Sequential Circuit, Integrated Circuits (Concept only)	Jul-Dec	32
CMS-A-CC-1-1-P	CC1	Digital Circuits	Combinational Circuits, Sequential Circuits:	Jul-Dec	32
CMS-G-CC-1-1-TH	GE1	Computer Fundamentals and Digital Logic Design	Boolean Algebra, Combinational Circuits, Sequential Circuits	Jul-Dec	32
CMS-A-CC-3-5-TH	CC5	Computer Organization	Basic Structure of Computers	Jul-Dec	32

		and Architecture	(Qualitative Discussion), Register Transfer and Micro-operation, Basic Computer Organization and Design, CPU Organization, Control Unit, CPU Registers, Instructions, CISC and RISC processors, Input / Output Organization		
CMS-A-CC-3-5-P	CC5	Computer Organization Lab	19 experiments	Jul-Dec	32
CMS-A-DSE-B--2-TH	DSE B2	Programmin g using Python 3	Introduction to the Python, Strings, Lists, Tuples, Conditionals, Iterators, and Generators, User-defined Functions and Recursion Functions: definition, function signature, User-defined Functions and Recursion, File Handling and Exception Handling, Unordere d data types - Sets and Dictionaries, Intro to Object Oriented Programming	Jul-Dec	30
CMS-A-DSE-B--2-P	DSE B2	Python 3 Programmin g Lab.	Computation and Programming Using Python	Jul-Dec	20

## Teaching Plan

**Session:2022**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CMS-A-CC-6-13, -P, CMS-A-CC-6-14, -P	CC13, CC14	Project	JAVA based project	Jan -Jun	16
CMS-A-DSE-A-- 4-TH:	DSE A4	Multimedia and its Applications	Multimedia, Video, Animation, Multimedia System,Multi-moda l Communication	Jan-Jun	30
CMS-A-DSE-A-- 4-P	DSE A4	Multimedia and its Applications Lab	Practical problems related to theory	Jan-Jun	20
CMS-A-CC-2-4- TH	CC4	Basic Electronic Devices and Circuits	Basics of Circuit Theory,Theory of Semiconductor devices,Diode and its applications, Bipolar Junction Transistor, Unipolar	Jan -Jun	32

			Junction Transistor, PNPN Devices, Operational Amplifiers (OPAMP), Timer, Data Acquisition		
CMS-A-CC-2-4-P	CC4	Basic Electronic Devices and Circuits Lab	21 experiments	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		Introduction to Microcomputer based system, Microprocessor Architecture and Memory Interfacing, Interfacing I/O Devices, Interfacing I/O Devices, Interfacing Peripheral (I/O) and Applications, Microprocessor 8086	Jan -Jun	32
CMS-A-CC-4-10-TH	CC10		programming techniques of Microprocessor 8085	Jan -Jun	32
CMS-A-CC-1-1-TH	CC1	Digital Logic	Introduction to Computer Fundamentals, Number Systems, Boolean Algebra, Combinational Circuits, Sequential Circuit, Integrated Circuits (Concept only)	Jul-Dec	32
CMS-A-CC-1-1-P	CC1	Digital Circuits	Combinational Circuits, Sequential Circuits:	Jul-Dec	32
CMS-G-CC-1-1-TH	GE1	Computer Fundamental	Boolean Algebra, Combinati	Jul-Dec	32

		s and Digital Logic Design	onal Circuits, Sequential Circuits		
CMS-A-CC-3-5-TH	CC5	Computer Organization and Architecture	Basic Structure of Computers (Qualitative Discussion), Register Transfer and Micro-operation, Basic Computer Organization and Design, CPU Organization, Control Unit, CPU Registers, Instructions, CISC and RISC processors, Input / Output Organization	Jul-Dec	32
CMS-A-CC-3-5-P	CC5	Computer Organization Lab	19 experiments	Jul-Dec	32
CMS-A-DSE-B--2-TH	DSE B2	Programmin g using Python 3	Introduction to the Python, Strings, Lists, Tuples, Conditionals, Iterators, and Generators, User-defined Functions and Recursion Functions: definition, function signature, User-defined Functions and Recursion, File Handling and Exception Handling, Unordere d data types - Sets and Dictionaries, Intro to Object Oriented Programming	Jul-Dec	30

CMS-A-DSE-B-- 2-P	DSE B2	Python 3 Programmin g Lab.	Computation and Programming Using Python	Jul-Dec	20
----------------------	--------	----------------------------------	--	---------	----

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

**Department:** Computer Science  
**Name of the teacher:** CHAITALI PATRA

**Session: 2018-19**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part-II(H)	Paper : III	Group – A Graph Theory	<b>Graph Theory</b> Basic Terminology, Models and Types, Multi graphs and Weighted graphs, GraphRepresentation, Graph Isomorphism, Connectivity, Euler and Hamiltonian Paths and Circuits, Planar Graphs, Trees and their basic terminologies and properties.	Jul 18- Mar-19	12
	Paper : IVB	SEC- II: Data Structure using C	Linklist,Stacks,Trees, searching,sorting		24
Part-II(G)	Paper : III	Practical : Microsoft office,C prog & SQL	Word,Excel & Powerpoint, General C prog and Application and execution of Query through SQL		24
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 18- Mar-19	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30



## Teaching Plan

### Teaching Plan

**Department:**        **Computer Science**

**Session: 2019-20**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Jul 19-Dec-19	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS, Process, memory management,file management	Aug 19-Dec-19	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Aug 19-Dec-19	20
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 19- Mar 20	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department:**        **Computer Science**

**Session: 2019-20**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-TH	Data structure and Data Structure using C	Array,linked_list,Tre e,Searching,Sorting	Mar 23 – Jun 23	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques-Greedy methods,Graph Representation and Algorithm( Kruskal & Prims )	Feb 23 – Jun 23	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 23 – Jun 23	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System, Process, memory management	Feb 23 – Jun 23	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department: Computer Science**

**Session: 2020-21**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Jul 19-Dec-19	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS, Process, memory management,file management	Aug 19-Dec-19	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Aug 19-Dec-19	20
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 19- Mar 20	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

## Teaching Plan

### Teaching Plan

**Department:** Computer Science

**Session: 2020-21**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-TH	Data structure and Data Structure using C	Array,linked_list,Tre e,Searching,Sorting	Mar 23 – Jun 23	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques-Greedy methods,Graph Representation and Algorithm( Kruskal & Prims )	Feb 23 – Jun 23	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 23 – Jun 23	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System, Process, memory management	Feb 23 – Jun 23	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

### Teaching Plan

**Department:** Computer Science

**Session: 2021-22**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-1 :</b> GE	CMS-G-CC-1-1-TH	Computer Fundamentals and Digital Logic Design	Number System	Jul 19-Dec-19	8
	CMS-G-CC-1-P	Word Processing, Spreadsheet, Presentation and Web design by HTML	Word,Excel and Powepoint		16
<b>SEM-3 :</b> CC	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS, Process, memory management,file management	Aug 19-Dec-19	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Aug 19-Dec-19	20
Part-III(H)	Paper : VI	Gr-D: DBMS	Introduction,ER Model, Relational Model,Integrity Constraints,SQL,	Jul 19- Mar 20	12
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science

## Teaching Plan

### Teaching Plan

**Department:** Computer Science

**Session:** 2021-22

**Name of the teacher:** CHAITALI PATRA

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> CC	CMS-A-CC-2-3-TH & CMS-A-CC-2-3-P	Data structure and Data Structure using C	Linklist,Stacks,Trees, Hashing	Mar 22 – Jun 22	16(TH) &160(P)
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-P	Programming using C	General C Prog	Mar 22 – Jun 22	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques(Except Greedy & DP)Graph Representation and Algorithm(Except Kruskal & Prims	Feb 22 – Jun 22	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 22 – Jun 22	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4-TH	Operating Systems	Introduction, Operating System Organization, Process	Feb 22 – Jun 22	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
	Paper : 7B	VB & SQL	Commands in SQL and Connection b/w VB & SQL		30
<b>SEM-6 :</b> CC	CMS-A-CC-6-13-TH	Software Engineering	Software Life Cycle, Software Requirement and Specification Analysis, Software Quality Assurances	Feb 22 – Jun 22	20
	CMS-A-CC-6-13-P	Project Work	Alloted project by departmental students		12

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

**Teaching Plan**

**Department:**        **Computer Science**

**Session: 2022-23**

**Name of the teacher: CHAITALI PATRA**

<b>Course type (CC/ GE/SEC/ AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
<b>SEM-3 : CC</b>	CMS-A-CC-3-7-TH	Operating Systems	Introduction, OS Organization, Process, memory management,file management	Sep 22-Jan-23	20
	CMS-A-CC-3-7-P	Operating Systems Lab	Shell programming in LINUX	Sep 22-Jan-23	20
<b>SEM-5 : CC</b>	CMS-A-CC-5-11-TH	Database Management system (DBMS)	Introduction, Normalization,funci onal dependency,file system	Sep 22-Jan-23	12
	CMS-A-CC-5-11-P	Relational Database Management System	RDBMS Lab using My SQL & PHP		30

S.A.JAIPURIA COLLEGE ( Day shift)  
Department of Computer Science  
**Teaching Plan**

## Teaching Plan

**Department:**        **Computer Science**

**Session: 2022-23**

**Name of the teacher: CHAITALI PATRA**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>SEM-2 :</b> GE-	CMS-G-CC-2-2-TH	Data structure and Data Structure using C	Array,linked_list,Tre e,Searching,Sorting	Mar 23 – Jun 23	24
<b>SEM-4 :</b> CC	CMS-A-CC-4-9-TH	Introduction to Algorithms & its Application.	Introduction to Algorithms, Asymptotic Complexity Analysis of Algorithms, Algorithm Design Techniques-Greedy methods,Graph Representation and Algorithm( Kruskal & Prims )	Feb 23 – Jun 23	16
	CMS-A-CC-4-9-PR	Algorithms Lab.	Lab. based on Graph Theory using C	Feb 23 – Jun 23	20
<b>SEM-4 :</b> GE	CMS-G-CC-4-4- TH	Operating Systems	Introduction, Operating System, Process, memory management	Feb 23 – Jun 23	12
	CMS-G-CC-4-4-P	Shell Programming (Unix/ Linux)	General Shell Programming (Linux)		20
<b>SEM-6 :</b> CC	CMS-A-CC-6-13-TH	Software Engineering	Software Life Cycle, Software Requirement and Specification Analysis,Testing	Feb 23 – Jun 23	20
	CMS-A-CC-6-13-P	Project Work	Alloted project by departmental students		12
	CMS-A-CC-6-14-TH	Theory of Computation	Regular Expression, Turing Machine		20



## Teaching Plan

**Department: Computer Science**

**Session: 2018-2019**

**Name of the teacher: Jayeeta Pyne**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of clas ses
CC 8	Networking	TCP/IP LAYERS	Physical layer, Datalink layer, medium access sublayer, Transport layer.	Jan - may 32	
SEC B2	E- Commerce	Internet, EDE, Internet Marketing	Details of the units	Jan- May	20
Cc12	OOPS using Java	Concept, array , string, inheritance	Interfaces, Applets	July- Dec	34
Cc13	Software Engineering	SLC, Testing, Quality Assurance	Models of software life cycle, COCOMO, SSQA	July- Dec	26
DSE A4	Multimedia	Sound, video, animation, multimedia system	MIDI, technique of video, details of animation	July- Dec	28
GE 1	Computer fundamentals	Number System, Boolean Algebra, logic circuits	Virus, types of number system, logic gates, boolean laws, simplification	July - Dec	18
Ge2	Data structure	Stack , Queue, sorting	Details of the units	Jan- may	18



## Teaching Plan

**Department: Computer Science**

**Session: 2020-2021**

**Name of the teacher: Jayeeta Pyne**

Course type (CC/ GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC8	Networking	TCP/ IP Layers	Details of the units	Jan- May	32
SEC B2	E- Commerce	Internet, EDE, Internet Marketing	Details of the units	Jan- May	20
Cc12	OOPS using Java	Concept, array , string, inheritance	Interfaces, Applets	July- Dec	34
Cc13	Software Engineering	SLC, Testing, Quality Assurance	Models of software life cycle, COCOMO, SSQA	July- Dec	26
DSE A4	Multimedia	Sound, video, animation, multimedia system	MIDI, technique of video, details of animation	July- Dec	28
GE 1	Computer fundamentals	Number System, Boolean Algebra, logic circuits	Virus, types of number system, logic gates, boolean laws, simplification	July - Dec	18
Ge2	Data structure	Stack , Queue, sorting	Details of the units	Jan- may	18



## Teaching Plan

**Department:**      **Computer Science**

**Session: 2021-2022**

**Name of the teacher: Jayeeta Pyne**

<b>Course type (CC/ GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC8	Networking	TCP/ IP Layers	Details of the units	Jan- May	32
SEC B2	E- Commerce	Internet, EDE, Internet Marketing	Details of the units	Jan- May	20
Cc12	OOPS using Java	Concept, array , string, inheritance	Interfaces, Applets	July- Dec	34
Cc13	Software Engineering	SLC, Testing, Quality Assurance	Models of software life cycle, COCOMO, SSQA	July- Dec	26
Cc1	Digital	Introduction, Number System, combinational circuits	Details of the units	July- Dec	28
GE 1	Computer fundamentals	Number System, Boolean Algebra, logic circuits	Virus, types of number system, logic gates, boolean laws, simplification	July - Dec	18
Ge2	Data structure	Stack , Queue, sorting	Details of the units	Jan- may	18



### Teaching Plan

**Department: Economics**

**Name of the teacher: Sreeja Patra**

<b>Session:2022-2023 (Even Semester)</b>					
<b>Course type (CC/ GE/SEC/AE CC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course-IV	Mathematical Methods in Economics-II (ECO-A-CC-2-4-TH)	3.Difference Equations	1.Finite difference Equations of first and 2nd orders and their solutions 2.Application in Economics- Cobweb model, Multiplier-Accelerator model	April & May, 2023	12
		4.Differential Equations	1.Solution of Differential equations of first order and second order of linear differential equations. 2.Economic application-price dynamics in a single market- multimarket supply demand model with two independent markets. 3.Qualitative graphic solution to 2x2 linear simultaneous non-linear differential equation system- phase diagram, fixed point and stability. Economic applications in microeconomics and macroeconomics	May & June, 2023	14
Core course-IX	Intermediate Macroeconomics II (ECO-A-CC-4-9-TH)	1. Basic Tenets of New Classical and New Keynesian Theories	1.New Classical Theory-The concept of rational expectations and the theory of real business cycle: introductory ideas 2. New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing- introductory ideas	March, April & May, 2023	20
Core Course-X	Introductory Econometrics (ECO-A-CC-4-10-TH-TU)	6. Specification Analysis	1. Omission of a relevant variable 2. Inclusion of irrelevant variables 3. Tests of specification errors 4. Testing for linearity and normality assumptions	April, 2023	08
Core Course-XIII	Public Economics (ECO-A-CC-6-13-TH-TU)	4. Public Finance	1.Meaning and Classification of Public Expenditure 2.Government budget and its types 3. Government expenditure and tax multipliers 4.Balanced budget multiplier 5. Meaning of Public Debt; Sources of Public Borrowings; internal and external borrowing 6.Effects of Public Debt. 7.Indian Public Finance – Fiscal Federalism in India	April, May, 2023	20
<b>Session: 2022-2023 (Odd Semester)</b>					
Core Course-VI	Intermediate Macroeconomics-I (ECO-A-CC-3-6-TH-TU)	4. Money Supply, Monetary Policy and Government Budgetary Operations	1.Measures of money supply with special reference to India (M1, M2, M3 and M4) 2. Balance sheet view of money supplied by the banking sector as a whole 3. High powered money –definition	August – 23 <sup>rd</sup> September, 2022	17

			<p>4. Balance sheet of Reserve Bank of India and High-powered money</p> <p>5. Balance sheet of Commercial banks and basic ideas of money multiplier theory.</p> <p>6. Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply</p> <p>7. Interest sensitivity of money supply and the slope of the LM curve</p> <p>8. Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate.</p> <p>9. Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.</p>		
		5. Inflation, Unemployment and Expectations	<p>1. The concept of Inflationary Gap.</p> <p>2. Demand pull vs. Cost push inflation</p> <p>3. Mark-up inflation</p> <p>4. The concept of stagflation</p> <p>5. Central Bank 's role in controlling inflation: Monetary policy.</p> <p>6. Inflation and unemployment trade-off.</p> <p>7. Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model.</p> <p>8. Deriving the Phillips Curve from Aggregate Supply Curve.</p> <p>9. Short run and long- run Phillips curve – role of adaptive expectations and rational expectations.</p> <p>10. Disinflation, Sacrifice Ratio and policy ineffectiveness</p>	October & November , 2022	20
Core Course- XI	International Economics (ECO-A-CC-5-11-TH-TU)	3. Factor Endowment and Trade (Heckscher-Ohlin-Samuelson Model)	<p>1. Heckscher-Ohlin (HO) theorem and price vs physical definitions of relative factor abundance.</p> <p>2. Role of homotheticity of tastes in the context of physical definition</p> <p>3. Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem.</p> <p>4. Factor intensity ranking, one-to-one correspondence between commodity price ratio &amp; factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczynski theorem)</p> <p>5. The Factor Price Equalization Theorem. Factor price equalization and complete specialization.</p>	August – 23 <sup>rd</sup> September , 2022	15



			6. Incomplete Specialization, Factor price equalization and Factor Intensity Reversal 7. Empirical studies- Leontief Paradox.		
		4. Applications of Neo-classical Trade Models for developing countries	1. Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies. 2. Basic structure –significance of the assumption of constant returns to scale- the decomposability property- the capital intensity condition in physical and value terms 3. Implications of Stolper-Samuelson and Rybczynski theorems- the price and output magnification effects. 4. Jones (1971) 3x2(three factors-two commodities) specific-factor model. 5. Basic structure, significance of the assumption of constant returns to scale- the indecomposability property. 6. Implications of price magnification effects in specific factor model	October, 2022	10
<b>Session: 2021-2022 (Even Semester)</b>					
Core course- IX	Intermediate Macroeconomics II (ECO-A-CC-4-9-TH)	1. Basic Tenets of New Classical and New Keynesian Theories	1. New Classical Theory- The concept of rational expectations and the theory of real business cycle: introductory ideas 2. New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing- introductory ideas	23 <sup>rd</sup> February, March, April & May, 2022	20
Core Course- XIII	Public Economics (ECO-A-CC-6-13-TH-TU)	4. Public Finance	1. Meaning and Classification of Public Expenditure 2. Government budget and its types 3. Government expenditure and tax multipliers 4. Balanced budget multiplier 5. Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing 6. Effects of Public Debt. 7. Indian Public Finance – Fiscal Federalism in India	23 <sup>rd</sup> February, March, April & May, 2022	20
<b>Session: 2021-2022 (Odd Semester)</b>					
Core Course- VI	Intermediate Macroeconomics-I (ECO-A-CC-3-6-TH-TU)	4. Money Supply, Monetary Policy and Government Budgetary Operations	1. Measures of money supply with special reference to India (M1, M2, M3 and M4) 2. Balance sheet view of money supplied by the banking sector as a whole 3. High powered money –definition 4. Balance sheet of Reserve Bank of India and High-powered money 5. Balance sheet of Commercial banks and basic ideas of money multiplier theory. 6. Deposit multiplier, currency multiplier, reserve multiplier, credit	September, 2021	17

			<p>multiplier and money multiplier in the context of the theory of money supply</p> <p>7. Interest sensitivity of money supply and the slope of the LM curve</p> <p>8. Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate.</p> <p>9. Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.</p>		
		5. Inflation, Unemployment and Expectations	<p>1. The concept of Inflationary Gap.</p> <p>2. Demand pull vs. Cost push inflation</p> <p>3. Mark-up inflation</p> <p>4. The concept of stagflation</p> <p>5. Central Bank 's role in controlling inflation: Monetary policy.</p> <p>6. Inflation and unemployment trade-off.</p> <p>7. Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model.</p> <p>8. Deriving the Phillips Curve from Aggregate Supply Curve.</p> <p>9. Short run and long- run Phillips curve – role of adaptive expectations and rational expectations.</p> <p>10. Disinflation, Sacrifice Ratio and policy ineffectiveness</p>	November , 2021	20
Core Course- XI	International Economics (ECO-A-CC-5-11-TH-TU)	3. Factor Endowment and Trade (Heckscher-Ohlin-Samuelson Model)	<p>1. Heckscher-Ohlin (HO)theorem and price vs physical definitions of relative factor abundance.</p> <p>2. Role of homotheticity of tastes in the context of physical definition</p> <p>3. Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem.</p> <p>4. Factor intensity ranking, one-to-one correspondence between commodity price ratio &amp; factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczynski theorem)</p> <p>5. The Factor Price Equalization Theorem. Factor price equalization and complete specialization.</p> <p>6. Incomplete Specialization, Factor price equalization and Factor Intensity Reversal</p> <p>7. Empirical studies- Leontief Paradox.</p>	September , 2021	15
		4. Applications of Neo-classical Trade Models for developing countries	<p>1. Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies.</p>	November , 2021	10

			<p>2. Basic structure –significance of the assumption of constant returns to scale- the decomposability property- the capital intensity condition in physical and value terms</p> <p>3. Implications of Stolper-Samuelson and Rybczynski theorems- the price and output magnification effects.</p> <p>4. Jones (1971) 3x2(three factors-two commodities) specific-factor model.</p> <p>5. Basic structure, significance of the assumption of constant returns to scale- the indecomposability property.</p> <p>6. Implications of price magnification effects in specific factor model</p>		
<b>Session: 2020-2021 (Even Semester)</b>					
Core course- IX	Intermediate Macroeconomics II (ECO-A-CC-4-9-TH)	1. Basic Tenets of New Classical and New Keynesian Theories	<p>1. New Classical Theory- The concept of rational expectations and the theory of real business cycle: introductory ideas</p> <p>2. New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing- introductory ideas</p>	April, May & June, 2021	20
Core Course- XIII	Public Economics (ECO-A-CC-6-13-TH-TU)	4. Public Finance	<p>1. Meaning and Classification of Public Expenditure</p> <p>2. Government budget and its types</p> <p>3. Government expenditure and tax multipliers</p> <p>4. Balanced budget multiplier</p> <p>5. Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing</p> <p>6. Effects of Public Debt.</p> <p>7. Indian Public Finance – Fiscal Federalism in India</p>	April, May & June, 2021	20
DSE-A2	Money and Financial Markets (MFM) (ECO-A-DSE-6-A(2)-TH-TU)	1. Introduction to money and Money and Banking	1. Concept, functions, measurement; theories of money supply determination	April, 2021	5
		2. Financial Institutions, Markets, Instruments and Financial Innovations	<p>1. Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises.</p> <p>2. Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.</p> <p>3. Why banks are special Institutions? How banks act as a leveraging mechanism?</p>	April, 2021	17
		3. Financial Markets and Interest Rates Behavior	<p>1. Determination; sources of interest rate differentials</p> <p>2. Theories of term structure of interest rates; interest rates in India</p>	May, 2021	18
		4. Banking System	<p>1. Balance sheet and portfolio management</p> <p>2. Multiple Deposit Creation,</p> <p>3. Determinants of the Money Supply</p>	May, 2021	20

			4. Indian banking system- Changing role and structure- banking sector reforms		
		5. Central Banking and Monetary Policy	1. Functions, balance sheet; goals, targets, indicators and instruments of monetary control 2. Monetary management in an open economy; current monetary policy of India	June, 2021	15
<b>Session: 2020-2021 (Odd Semester)</b>					
Core Course- VI	Intermediate Macroeconomics-I (ECO-A-CC-3-6-TH-TU)	4. Money Supply, Monetary Policy and Government Budgetary Operations	1. Measures of money supply with special reference to India (M1, M2, M3 and M4) 2. Balance sheet view of money supplied by the banking sector as a whole 3. High powered money –definition 4. Balance sheet of Reserve Bank of India and High-powered money 5. Balance sheet of Commercial banks and basic ideas of money multiplier theory. 6. Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply 7. Interest sensitivity of money supply and the slope of the LM curve 8. Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate. 9. Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.	November , 2020	17
		5. Inflation, Unemployment and Expectations	1. The concept of Inflationary Gap. 2. Demand pull vs. Cost push inflation 3. Mark-up inflation 4. The concept of stagflation 5. Central Bank 's role in controlling inflation: Monetary policy. 6. Inflation and unemployment trade-off. 7. Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model. 8. Deriving the Phillips Curve from Aggregate Supply Curve. 9. Short run and long- run Phillips curve – role of adaptive expectations and rational expectations. 10. Disinflation, Sacrifice Ratio and policy ineffectiveness	December , 2021	15
Core Course- XI	International Economics	3. Factor Endowment and Trade	1. Heckscher-Ohlin (HO) theorem and price vs physical definitions of relative factor abundance.	November &	15

	(ECO-A-CC-5-11-TH-TU)	(Heckscher-Ohlin-Samuelson Model)	<p>2. Role of homotheticity of tastes in the context of physical definition</p> <p>3. Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem.</p> <p>4. Factor intensity ranking, one-to-one correspondence between commodity price ratio &amp; factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczynski theorem)</p> <p>5. The Factor Price Equalization Theorem. Factor price equalization and complete specialization.</p> <p>6. Incomplete Specialization, Factor price equalization and Factor Intensity Reversal</p> <p>7. Empirical studies- Leontief Paradox.</p>	December , 2020	
		4. Applications of Neo-classical Trade Models for developing countries	<p>1. Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies.</p> <p>2. Basic structure –significance of the assumption of constant returns to scale-the decomposability property-the capital intensity condition in physical and value terms</p> <p>3. Implications of Stolper-Samuelson and Rybczynski theorems-the price and output magnification effects.</p> <p>4. Jones (1971) 3x2(three factors-two commodities) specific-factor model.</p> <p>5. Basic structure, significance of the assumption of constant returns to scale-the indecomposability property.</p> <p>6. Implications of price magnification effects in specific factor model</p>	December & January, 2020	10
<b>Session: 2019-2020 (Even Semester)</b>					
Core Course-VIII	Intermediate Microeconomic s II (ECO-A-CC-4-8-TH)	Unit 3: General Equilibrium, Efficiency and Welfare	<p>1. General Equilibrium and Economic Efficiency- Exchange, production and welfare, Pareto Optimality, Edgeworth box and contract curve, Pareto efficiency and perfect competition</p> <p>2. Reasons for Market failure, Pareto efficiency and market failure (externalities and public goods), property right and Coase Theorem</p> <p>3. Markets with asymmetric information-adverse selection, moral hazards, agency problems (concepts only)</p>	April & May, 2020	30
Core course-IX	Intermediate Macroeconomic s II (ECO-A-CC-4-9-TH)	1. Basic Tenets of New Classical and New Keynesian Theories	<p>1. New Classical Theory-The concept of rational expectations and the theory of real business cycle: introductory ideas</p> <p>2. New Keynesian Theory- nominal rigidities and real rigidities, rigidities in</p>	April & May, 2020	20

			interest rates and credit rationing- introductory ideas		
<b>Session: 2019-2020 (Odd Semester)</b>					
Core Course-I	Introductory Microeconomics (ECO-A-CC-1-1-TH-TU)	4. Market Sensitivity and Elasticity	1. Importance of Elasticity in Choice- Decisions 2. Method of Calculation- Arc Elasticity, Point Elasticity-definition 3. Demand and supply Elasticities-types of elasticity and factors affecting elasticity, Demand Elasticity and Revenue, Long run and short run elasticities of Demand and Supply 4. Income and Cross Price Elasticity 5. Applications: Case studies – OPEC and Oil Price, Illegal Drugs	July & August, 2019	12
		5. Government Intervention	1.The Economic Role of Government with respect to Market: (i) Price Ceiling, Price Floor and Market Adjustment (with short case studies of agricultural administered price, minimum wage and rent control); (ii) Black Market; (iii) Tax and market adjustment; (iv) Elasticity and Tax incidence 2. Comparison of markets with and without government	August & September , 2019	08
Core Course-V	Intermediate Microeconomics –I (ECO-A-CC-3-5-TH-TU)	1. Theories of Consumer Behaviour and Applications	1.Inter-temporal choice (saving and borrowing) 2. Revealed preference 3. Choice under uncertainty – utility function and expected utility, risk aversion and risk preference 4.Applications of Consumer Behaviour in Construction of Price Indices – Laspeyers and Paasche's indices	August & September , 2019	17
Core Course-VI	Intermediate Macroeconomics-I (ECO-A-CC-3-6-TH-TU)	3. Keynes vs. Classics	1. Keynesian vs classical system. 2.Hybrid models under Classical/Keynesian framework. 3. Friedman's restatement of classical ideas	August, 2019	10
		4. Money Supply, Monetary Policy and Government Budgetary Operations	1.Measures of money supply with special reference to India (M1, M2, M3 and M4) 2. Balance sheet view of money supplied by the banking sector as a whole 3. High powered money –definition 4. Balance sheet of Reserve Bank of India and High-powered money 5.Balance sheet of Commercial banks and basic ideas of money multiplier theory. 6.Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply 7. Interest sensitivity of money supply and the slope of the LM curve	September & November , 2019	17

			8. Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate. 9. Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.		
<b>1+1+1 System (2019-2020)</b>					
Honours- VI (A & B)	Contemporary Economic Issues: India and West Bengal	Economic Reform in India Since 1991	1.1. Background of Indian Economic Reforms – New Economic Policy. Redefining India's development strategy. Changing Role of State and Market. 1.2 Industrial Policy, Disinvestment policy and Privatization. 1.3 Financial sector reforms including banking reform. Monetary Policy of RBI. 1.4 Fiscal Policy Reform – tax reform, debt management, FRBM act and subsidies. 1.5 External sector reforms: Foreign Exchange market, balance of payments, reform, convertibility, export-import policy, foreign direct investment.	July & August, 2019	20
		Agriculture, Poverty and Social Security	2.1 Post-reform Agricultural Performance and its Crisis 2.2 Poverty and exclusion, NREGA, social security for unorganized workers and forest policy.	August & September , 2019	13
		Post-reform performance of Indian Economy	3.1 Appraisal of Indian Economic Reform. India's Growth Experience	September , 2019	4
		Indian economy: Some Current and Future Issues	4.1 Inclusive development 4.2 Growth of the Service Sector 4.3 Food security, Food Procurement and Public Distribution System. 4.4 Migration and Urbanization. 4.5 Land acquisition, SEZ and Industrialization. 4.6 Demographic dividend	November & December , 2019	18
		West Bengal Economy: An Overview	5.1 West Bengal Economy Structure and Growth – based on state domestic product (SDP) data and employment data from National Sample Survey and Census of India. 5.2 West Bengal Economy in relation to India and major states in recent decades: in terms of indicators on - per capita SDP, per capita consumption (rural and urban), income growth, human development	July & August, 2019	10
		Growth and Development of West Bengal Economy	6.1 Land Reforms, agricultural growth and related current problems- growth of non-farm rural sector 6.2 Industrial development – problems and prospects; Tertiary sector growth –	September , 2019	15

			Informalisation in manufacturing and tertiary sectors. 6.3 Poverty alleviation, Employment generation, self-help-group and social security: Problems and policies		
--	--	--	--	--	--

**Department: Commerce**

Session:2022-2023 (Odd Semester)					
Course type (CC/ GE/SEC/AE CC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	Microeconomic s I (GE 1.1 Chg)	Unit: II Production and Cost	1.Production function: Short-run and Long-run; 2.Relation among Total Product, Average Product and Marginal Product, Law of returns to a variable factor 3.Law of Returns to Scale 4.Concepts of Iso-quant and iso-cost line 5.Conditions for optimization (graphical approach). 6. Cost: Accounting and Economic Costs 7.Social and Private Costs; 8.Short-run and Long-run Costs 9.Relation between Average and Marginal Costs 10.Determination of LAC curve from SAC curves, LMC.	August- September	10
		Unit: III Perfect Competition	1.Concept of Perfectly Competitive market 2. Assumptions, Profit maximization conditions 3.Related concepts of Total Revenue 4.Average Revenue and Marginal Revenue 5.Short-run and long run equilibrium of a firm	September- November	05
CC	Indian Financial System (CC3.2 Ch)	Unit: II Financial Markets ((a) Money Market)	1.Functions and Instruments 2.Role of Central Bank 3. Indian Money Market: An Overview, Call Money Market, Treasury Bills Market, Commercial Paper (CP) Market, Certificate of Deposit (CD) Market 4. Concepts- Repo, Reverse Repo; Recent trends in the Indian money market.	August	10
		Unit: IV Financial Services	1.Merchant Banks: Functions and Role, SEBI Regulations 2.Credit Rating: Objectives and Limitations, SEBI Regulations 3.Credit Rating Institutions and their functions.	September	10
		Unit: V Investors' Protection	1.Concept of investors' protection 2.Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism	November- December	10



			3.Role of SEBI, judiciary and the media		
DSE	Macroeconomics (DSE 5.1A)	Unit I: Introduction	Concepts and variables of Macroeconomics	August	2
		Unit – II: National Income Accounting	1.Concepts and measurement of National Income (numerical examples preferred) 2.Circular flow of income – Real and Nominal GDP –Implicit deflator	August	6
		Unit – V: Money, Inflation and Unemployment	1.Concept of supply of money 2. Measures of money supply – High powered money – Money multiplier. 3.Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation 4. Unemployment: Voluntary and Involuntary, Frictional and Natural Rate of Unemployment.	September, November	12
2022-2023 (Even Semester)					
GE	Microeconomics-II & Indian Economy (4.1 Chg)	Unit: I Basic Issues in Economic Development	1.Concepts and measures of development and underdevelopment 2. Concept of national income: GDP, GNP, NDP, NNP, NI.	February	5
		Unit: II Basic Features of Indian Economy	1.Sectoral distribution of National Income and Occupational Structure 2.Structural Change in Indian Economy, issue of Service-led Growth.	March	10
		Unit: III Sectoral Trends and Issues	1.Agricultural Sector: a) Problem of low productivity b) Green Revolution and its impact c) Land Reforms d) Problems of rural credit and marketing. 2.Industry and Service Sector: An overview of industrial growth during pre-reform and post-reform period a) Role of Public Sector: its performance and the issue of disinvestment b) Role of MSME sector, problems faced by the MSME Sector c)Role of the Service Sector: growth of banking and insurance sector during the post-reform period. 3.External Sector: Problem of unfavorable balance of payments and policy measures.	April-June	15
CC	Project work (CC 6.1 Ch)	N.A.	N.A.	March-June	10
2021-2022 (Odd Semester)					
GE	Microeconomics I (GE 1.1 Chg)	Unit: II Production and Cost	1.Production function: Short-run and Long-run; 2.Relation among Total Product, Average Product and Marginal Product, Law of returns to a variable factor 3.Law of Returns to Scale 4.Concepts of Iso-quant and iso-cost line 5.Conditions for optimization (graphical approach). 6. Cost: Accounting and Economic Costs 7.Social and Private Costs:	August	10

			8.Short-run and Long-run Costs 9.Relation between Average and Marginal Costs 10.Determination of LAC curve from SAC curves, LMC.		
		Unit: III Perfect Competition	1.Concept of Perfectly Competitive market 2. Assumptions, Profit maximization conditions 3.Related concepts of Total Revenue 4.Average Revenue and Marginal Revenue 5.Short-run and long run equilibrium of a firm	September	05
CC	Indian Financial System (CC3.2 Ch)	Unit: II Financial Markets ((a) Money Market)	1.Functions and Instruments 2.Role of Central Bank 3. Indian Money Market: An Overview, Call Money Market, Treasury Bills Market, Commercial Paper (CP) Market, Certificate of Deposit (CD) Market 4. Concepts- Repo, Reverse Repo; Recent trends in the Indian money market.	August	10
		Unit: IV Financial Services	1.Merchant Banks: Functions and Role, SEBI Regulations 2.Credit Rating: Objectives and Limitations, SEBI Regulations 3.Credit Rating Institutions and their functions.	September	10
		Unit: V Investors' Protection	1.Concept of investors' protection 2.Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism 3.Role of SEBI, judiciary and the media	November	10
DSE	Macroeconomic s (DSE 5.1A)	Unit I: Introduction	Concepts and variables of Macroeconomics	August	2
		Unit – II: National Income Accounting	1.Concepts and measurement of National Income (numerical examples preferred) 2.Circular flow of income – Real and Nominal GDP –Implicit deflator	August	6
		Unit – V: Money, Inflation and Unemployment	1.Concept of supply of money 2. Measures of money supply – High powered money – Money multiplier. 3.Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation 4. Unemployment: Voluntary and Involuntary, Frictional and Natural Rate of Unemployment.	September, October, November	12
2021-2022 (Even Semester)					
GE	Microeconomic s-II & Indian Economy (4.1 Chg)	Unit: I Basic Issues in Economic Development	1.Concepts and measures of development and underdevelopment 2. Concept of national income: GDP, GNP, NDP, NNP, NI.	February	5
		Unit: II Basic Features of Indian Economy	1.Sectoral distribution of National Income and Occupational Structure 2.Structural Change in Indian Economy, issue of Service-led Growth.	March	10

		Unit: III Sectoral Trends and Issues	1.Agricultural Sector: a) Problem of low productivity b) Green Revolution and its impact c) Land Reforms d) Problems of rural credit and marketing. 2.Industry and Service Sector: An overview of industrial growth during pre-reform and post-reform period a) Role of Public Sector: its performance and the issue of disinvestment b) Role of MSME sector, problems faced by the MSME Sector c)Role of the Service Sector: growth of banking and insurance sector during the post-reform period. 3.External Sector: Problem of unfavorable balance of payments and policy measures.		15
CC	Project work (CC 6.1 Ch)	N.A.	N.A.	March-May	10
<b>2020-2021 (Odd Semester)</b>					
GE	Microeconomic s I (GE 1.1 Chg)	Unit: II Production and Cost	1.Production function: Short-run and Long-run; 2.Relation among Total Product, Average Product and Marginal Product, Law of returns to a variable factor 3.Law of Returns to Scale 4.Concepts of Iso-quant and iso-cost line 5.Conditions for optimization (graphical approach). 6. Cost: Accounting and Economic Costs 7.Social and Private Costs; 8.Short-run and Long-run Costs 9.Relation between Average and Marginal Costs 10.Determination of LAC curve from SAC curves, LMC.	August, September, October	10
		Unit: III Perfect Competition	1.Concept of Perfectly Competitive market 2. Assumptions, Profit maximization conditions 3.Related concepts of Total Revenue 4.Average Revenue and Marginal Revenue 5.Short-run and long run equilibrium of a firm	September, November, December	05
CC	Indian Financial System (CC3.2 Ch)	Unit: II Financial Markets ((a) Money Market)	1.Functions and Instruments 2.Role of Central Bank 3. Indian Money Market: An Overview, Call Money Market, Treasury Bills Market, Commercial Paper (CP) Market, Certificate of Deposit (CD) Market 4. Concepts- Repo, Reverse Repo; Recent trends in the Indian money market.	August, September	10
		Unit: IV Financial Services	1.Merchant Banks: Functions and Role, SEBI Regulations 2.Credit Rating: Objectives and Limitations, SEBI Regulations 3.Credit Rating Institutions and their functions.	September, November	10

		Unit: V Investors' Protection	1. Concept of investors' protection 2. Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism 3. Role of SEBI, judiciary and the media	December	10
DSE	Macroeconomics (DSE 5.1A)	Unit I: Introduction	Concepts and variables of Macroeconomics	August	2
		Unit – II: National Income Accounting	1. Concepts and measurement of National Income (numerical examples preferred) 2. Circular flow of income – Real and Nominal GDP – Implicit deflator	September	6
		Unit – V: Money, Inflation and Unemployment	1. Concept of supply of money 2. Measures of money supply – High powered money – Money multiplier. 3. Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation 4. Unemployment: Voluntary and Involuntary, Frictional and Natural Rate of Unemployment.	November	12
2020-2021 (Even Semester)					
GE	Microeconomics-II & Indian Economy (4.1 Chg)	Unit: I Basic Issues in Economic Development	1. Concepts and measures of development and underdevelopment 2. Concept of national income: GDP, GNP, NDP, NNP, NI.	August	5
		Unit: II Basic Features of Indian Economy	1. Sectoral distribution of National Income and Occupational Structure 2. Structural Change in Indian Economy, issue of Service-led Growth.	September	10
		Unit: III Sectoral Trends and Issues	1. Agricultural Sector: a) Problem of low productivity b) Green Revolution and its impact c) Land Reforms d) Problems of rural credit and marketing. 2. Industry and Service Sector: An overview of industrial growth during pre-reform and post-reform period a) Role of Public Sector: its performance and the issue of disinvestment b) Role of MSME sector, problems faced by the MSME Sector c) Role of the Service Sector: growth of banking and insurance sector during the post-reform period. 3. External Sector: Problem of unfavorable balance of payments and policy measures.	October	15
CC	Project work (CC 6.1 Ch)	N.A.	N.A.	October	10
2019-2020 (Odd Semester)					
GE	Microeconomics I (GE 1.1 Chg)	Unit: II Production and Cost	1. Production function: Short-run and Long-run; 2. Relation among Total Product, Average Product and Marginal Product, Law of returns to a variable factor 3. Law of Returns to Scale 4. Concepts of Iso-quant and iso-cost line	July, August	10

			5.Conditions for optimization (graphical approach). 6. Cost: Accounting and Economic Costs 7.Social and Private Costs; 8.Short-run and Long-run Costs 9.Relation between Average and Marginal Costs 10.Determination of LAC curve from SAC curves, LMC.		
		Unit: III Perfect Competition	1.Concept of Perfectly Competitive market 2. Assumptions, Profit maximization conditions 3.Related concepts of Total Revenue 4.Average Revenue and Marginal Revenue 5.Short-run and long run equilibrium of a firm	August, September	05
CC	Indian Financial System (CC3.2 Ch)	Unit: II Financial Markets ((a) Money Market)	1.Functions and Instruments 2.Role of Central Bank 3. Indian Money Market: An Overview, Call Money Market, Treasury Bills Market, Commercial Paper (CP) Market, Certificate of Deposit (CD) Market 4. Concepts- Repo, Reverse Repo; Recent trends in the Indian money market.	July, August	10
		Unit: IV Financial Services	1.Merchant Banks: Functions and Role, SEBI Regulations 2.Credit Rating: Objectives and Limitations, SEBI Regulations 3.Credit Rating Institutions and their functions.	September	10
		Unit: V Investors' Protection	1.Concept of investors' protection 2.Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism 3.Role of SEBI, judiciary and the media	November	10
DSE	Macroeconomics (DSE 5.1A)	Unit I: Introduction	Concepts and variables of Macroeconomics	July	2
		Unit – II: National Income Accounting	1.Concepts and measurement of National Income (numerical examples preferred) 2.Circular flow of income – Real and Nominal GDP –Implicit deflator	August	6
		Unit – V: Money, Inflation and Unemployment	1.Concept of supply of money 2. Measures of money supply – High powered money – Money multiplier. 3.Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation 4. Unemployment: Voluntary and Involuntary, Frictional and Natural Rate of Unemployment.	September	12
2019-2020 (Even Semester)					
GE	Microeconomic s-II & Indian Economy (4.1 Chg)	Unit: I Basic Issues in Economic Development	1.Concepts and measures of development and underdevelopment 2. Concept of national income: GDP, GNP, NDP, NNP, NI.	February	5

		Unit: II Basic Features of Indian Economy	1.Sectoral distribution of National Income and Occupational Structure 2.Structural Change in Indian Economy, issue of Service-led Growth.	March	10
		Unit: III Sectoral Trends and Issues	1.Agricultural Sector: a) Problem of low productivity b) Green Revolution and its impact c) Land Reforms d) Problems of rural credit and marketing. 2.Industry and Service Sector: An overview of industrial growth during pre-reform and post-reform period a) Role of Public Sector: its performance and the issue of disinvestment b) Role of MSME sector, problems faced by the MSME Sector c)Role of the Service Sector: growth of banking and insurance sector during the post-reform period. 3.External Sector: Problem of unfavorable balance of payments and policy measures.	March, April, May	15
CC	Project work (CC 6.1 Ch)	N.A.	N.A.	March to May	10
<b>2018-2019 (Odd Semester)</b>					
GE	Microeconomic s I (GE 1.1 Chg)	Unit: II Production and Cost	1.Production function: Short-run and Long-run; 2.Relation among Total Product, Average Product and Marginal Product, Law of returns to a variable factor 3.Law of Returns to Scale 4.Concepts of Iso-quant and iso-cost line 5.Conditions for optimization (graphical approach). 6. Cost: Accounting and Economic Costs 7.Social and Private Costs; 8.Short-run and Long-run Costs 9.Relation between Average and Marginal Costs 10.Determination of LAC curve from SAC curves, LMC.	August	10
		Unit: III Perfect Competition	1.Concept of Perfectly Competitive market 2. Assumptions, Profit maximization conditions 3.Related concepts of Total Revenue 4.Average Revenue and Marginal Revenue 5.Short-run and long run equilibrium of a firm	September, November	05
CC	Indian Financial System (CC3.2 Ch)	Unit: II Financial Markets ((a) Money Market)	1.Functions and Instruments 2.Role of Central Bank 3. Indian Money Market: An Overview, Call Money Market, Treasury Bills Market, Commercial Paper (CP) Market, Certificate of Deposit (CD) Market 4. Concepts- Repo, Reverse Repo; Recent trends in the Indian money market.	August	10

		Unit: IV Financial Services	1.Merchant Banks: Functions and Role, SEBI Regulations 2.Credit Rating: Objectives and Limitations, SEBI Regulations 3.Credit Rating Institutions and their functions.	September	10
		Unit: V Investors’ Protection	1.Concept of investors’ protection 2.Grievances regarding new issue market and Stock Exchange transactions, and the Grievance Redressal Mechanism 3.Role of SEBI, judiciary and the media	November	10
DSE	Macroeconomic s (DSE 5.1A)	Unit I: Introduction	Concepts and variables of Macroeconomics	July	2
		Unit – II: National Income Accounting	1.Concepts and measurement of National Income (numerical examples preferred) 2.Circular flow of income – Real and Nominal GDP –Implicit deflator	August	6
		Unit – V: Money, Inflation and Unemployment	1.Concept of supply of money 2. Measures of money supply – High powered money – Money multiplier. 3.Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation 4. Unemployment: Voluntary and Involuntary, Frictional and Natural Rate of Unemployment.	September, October, November	12
2018-2019 (Even Semester)					
GE	Microeconomic s-II & Indian Economy (4.1 Chg)	Unit: I Basic Issues in Economic Development	1.Concepts and measures of development and underdevelopment 2. Concept of national income: GDP, GNP, NDP, NNP, NI.	February	5
		Unit: II Basic Features of Indian Economy	1.Sectoral distribution of National Income and Occupational Structure 2.Structural Change in Indian Economy, issue of Service-led Growth.	March	10
		Unit: III Sectoral Trends and Issues	1.Agricultural Sector: a) Problem of low productivity b) Green Revolution and its impact c) Land Reforms d) Problems of rural credit and marketing. 2.Industry and Service Sector: An overview of industrial growth during pre-reform and post-reform period a) Role of Public Sector: its performance and the issue of disinvestment b) Role of MSME sector, problems faced by the MSME Sector c)Role of the Service Sector: growth of banking and insurance sector during the post-reform period. 3.External Sector: Problem of unfavorable balance of payments and policy measures.	March, April, May	15
CC	Project work (CC 6.1 Ch)	N.A.	N.A.	March to May	10





## Teaching Plan

**Department: Economics**

**Session: 2022-2023**

**Name of the teacher: Jaydip Datta**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course	CC2 (Mathematical methods in Economics-1)	1	Preliminaries	September	10
		3	Single Variable Optimisation	November	10
		6	Game Theory	December- January	15
	CC3 (Intermediate Microeconomics –I)	3	The Firm and Perfect Market Structure	September- November	20
		4	Input Market in Perfect Competition	November- December- January	18
	CC11 (International Economics)	1	Absolute and Comparative Advantages of Trade	September- December	9
	SEC (Managerial Economics)	3	Capital Budgeting	February- March	8
		4	Cost of Capital	March-April	5
		5	Inventory Management	April-May	8
	Generic CC4	4	Policies and Performance of Indian Foreign Trade	March-April- May	18

**Department: Economics**

**Session: 2021-2022**

**Name of the teacher: Jaydip Datta**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC2 (Mathematical Methods for Economics- I)	1	Preliminaries	September- October	10
		3	Single Variable Optimisation	October- November	10
		6	Game Theory	November- January	15
	CC3 (Intermediate Microeconomics –I)	3	The Firm and Perfect Market Structure	September- November	20
		4	Input Market in Perfect Competition	November- December- January	18
	CC11 (International Economics)	1	Absolute and Comparative Advantages of Trade	September- December	9
		2	Descriptive Statistics	October- November- December- January	13
	SEC (Managerial Economics)	1	Demand, Cost and Profit Analysis	February	6
		2	Pricing Policies and Practices	March	3
		3	Capital Budgeting	April	8
		4	Cost of Capital	May	5
		5	Inventory Management	May	8

**Department: Economics**

**Session: 2020-2021**

**Name of the teacher: Jaydip Datta**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC2 (Mathematical Methods for Economics- I)	1	Preliminaries	September- October	10
		3	Single Variable Optimisation	October- November	10
		6	Game Theory	November- January	15
	CC3 (Intermediate Microeconomics –I)	3	The Firm and Perfect Market Structure	September- November	20
		4	Input Market in Perfect Competition	November- December- January	18
	CC11 (International Economics)	1	Absolute and Comparative Advantages of Trade	September- December	9
		2	Descriptive Statistics	October- November- December- January	13
	SEC (Managerial Economics)	1	Demand, Cost and Profit Analysis	February	6
		2	Pricing Policies and Practices	March	3
		3	Capital Budgeting	April	8
		4	Cost of Capital	May	5
		5	Inventory Management	May	8
	DSE (Money and Financial Markets)	1	Introduction to Money and Banking	February	5

		2	Financial Institutions, Markets, Instruments and Financial Innovations	March	17
		3	Financial Markets and Interest Rates Behaviour	April	18
		4	Banking System	May	20
		5	Central Banking and Monetary Policy	June	15

**Session: 2019-2020****Department: Economics****Name of the teacher: Jaydip Datta**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC2 (Mathematical Methods for Economics- I)	1	Preliminaries	September- October	10
		3	Single Variable Optimisation	October- November	10
		6	Game Theory	November- January	15
	CC3 (Intermediate Microeconomics –I)	3	The Firm and Perfect Market Structure	September- November	20
		4	Input Market in Perfect Competition	November- December- January	18
	CC11 (International Economics)	1	Absolute and Comparative Advantages of Trade	September- December	9
		2	Descriptive Statistics	October- November- December- January	13
	SEC (Managerial Economics)	1	Demand, Cost and Profit Analysis	February	6
		2	Pricing Policies and Practices	March	3
		3	Capital Budgeting	April	8
		4	Cost of Capital	May	5
		5	Inventory Management	May	8
Honours Paper	VA (International Economics)	1	Basic Models of Trade	September	10

		2	Resources, Comparative Advantage and Income Distribution	October- November	18
		3	The Standard Trade Model	December- January	16

**Session: 2018-2019****Department: Economics****Name of the teacher: Jaydip Datta**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC2 (Mathematical Methods for Economics- I)	1	Preliminaries	September- October	10
		3	Single Variable Optimisation	October- November	10
		6	Game Theory	November- January	15
	CC3 (Intermediate Microeconomics –I)	3	The Firm and Perfect Market Structure	September- November	20
		4	Input Market in Perfect Competition	November- December- January	18
	CC11 (International Economics)	1	Absolute and Comparative Advantages of Trade	September- December	9
		2	Descriptive Statistics	October- November- December- January	13
Honours Paper	VA (International Economics)	1	Basic Models of Trade	September	10
		2	Resources, Comparative Advantage and Income Distribution	October- November	18
		3	The Standard Trade Model	December- January	16
	IIIA (Microeconomics)	1	Consumer Theory	September- October	25
		3	Market Structure	November- December	30
		4	Input Market	January- February	10

## Teaching Plan

Department: Economics

Session:2020-2021

Name of the teacher: Nandita Sen Chakraborty

[illegible]



<p>CC 6 Economic s Core Course VI: ECO-A-C C-3-6-TH- TU</p>	<p>Intermediate Macroeconomics-I</p>	<p>1. Income Determinatio n in the Short-run (Part-II) : The IS-LM Model</p> <p>2. Aggregate Demand and Aggregate Supply- the Complete Keynesian Model</p> <p>3. Keynes vs. Classics</p>	<ul style="list-style-type: none"> <li>• IS-LM Model - equilibrium, stability and comparative statics. Crowding out .Effects of fiscal and monetary policies</li> <li>• Derivation of aggregate demand curve.</li> <li>• Derivation of aggregate supply curves both in the presence and absence of wage rigidity.</li> <li>• Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut.</li> <li>• Unemployment equilibrium and its causes- possible solutions including real balance effect.</li> <li>• Keynesian vs classical system.</li> <li>• Hybrid models under Classical/Keynesian framework.</li> <li>• Friedman’s restatement of classical ideas</li> <li>• Measures of money supply with special reference to India (M1,M2, M3 and M4)</li> <li>• Balance sheet view of money supplied by the banking sector as a whole</li> <li>• High powered money –definition</li> <li>• Balance sheet of Reserve Bank of India and High powered money</li> <li>• Balance sheet of Commercial banks and basic ideas of money multiplier theory.</li> <li>• Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply</li> <li>• Interest sensitivity of money supply and the slope of the LM curve.</li> </ul>	<p>Nov 2020 -June 2021</p>	<p>38 online</p>
---	--	--	---	--------------------------------	----------------------

		4. Money Supply, Monetary Policy and Government Budgetary Operations			17 online
CC 11	Economics Core Course XI: ECO-A-CC-5-11-T H-TU International Economics	6. Open Economy Macroecono mics and Balance of Payments	<ul style="list-style-type: none"> <li>• Determination of equilibrium income in open economy. Foreign Trade Multiplier with &amp; without repercussion effects.</li> <li>• Balance of Payment accounts in an open economy. Autonomous and accommodating transactions.</li> <li>• Fixed &amp;Flexible Exchange Rates: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, The Mundel-Fleming Model (IS LM BP model)</li> </ul>	Nov 20- June21	15 online
Continued upto Dec 2021.					

Session:2021-2022

[illegible]

ECO-A-C C-3-6-TH- TU		<p>(Part-II) : The IS-LM Model</p> <p>2. Aggregate Demand and Aggregate Supply- the Complete Keynesian Model</p> <p>3. Keynes vs. Classics</p> <p>4. Money Supply, Monetary Policy and Government</p>	<ul style="list-style-type: none"> <li>• Derivation of aggregate demand curve.</li> <li>• Derivation of aggregate supply curves both in the presence and absence of wage rigidity.</li> <li>• Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut.</li> <li>• Unemployment equilibrium and its causes- possible solutions including real balance effect.</li> <li>• Keynesian vs classical system.</li> <li>• Hybrid models under Classical/Keynesian framework.</li> <li>• Friedman's restatement of classical ideas</li> <li>• Measures of money supply with special reference to India (M1,M2, M3 and M4)</li> <li>• Balance sheet view of money supplied by the banking sector as a whole</li> <li>• High powered money –definition</li> <li>• Balance sheet of Reserve Bank of India and High powered money</li> <li>• Balance sheet of Commercial banks and basic ideas of money multiplier theory.</li> <li>• Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply</li> <li>• Interest sensitivity of money supply and the slope of the LM curve.</li> </ul>		17 online
----------------------------	--	---	--	--	--------------

		Budgetary Operations			
CC 11	Economics Core Course XI: ECO-A-CC-5-11-T H-TU International Economics	6. Open Economy Macroeconomics and Balance of Payments	<ul style="list-style-type: none"> <li>Determination of equilibrium income in open economy. Foreign Trade Multiplier with &amp; without repercussion effects.</li> <li>Balance of Payment accounts in an open economy. Autonomous and accommodating transactions.</li> <li>Fixed &amp; Flexible Exchange Rates: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, The Mundel-Fleming Model (IS LM BP model)</li> </ul> ECO-A-CC-5-11-TU	July 2021-Dec 2021	15 online

#### Teaching Plan

Department: Economics

Session: 2021-2022 [Even Semester]

Name of the teacher: Nandita Sen Chakraborty

Course type (CC/GE/SEC/AE/CC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC3	Introductory Macroeconomics (ECO-A-CC-2-3-T H-TU)	Unit 2 : Income Determination in the Short Run (Part-I) : The Simple Keynesian Model in a Closed Economy	The Simple Keynesian Model (SKM) in a Closed Economy without Government- the Keynesian Consumption Function; the Keynesian Saving Function; income determination in SKM; stability of equilibrium; the concept of effective demand- the concept of demand-determined output ; the Simple Keynesian Multiplier; the paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of	Feb _May 2022	18

			tax changes and government purchases on budget surplus; the full employment budget surplus		
		Unit 3 The Classical system	Basic ideas of Classical Macroeconomics; Say's Law and Quantity Theory of Money, Loanable fund theory; the Classical Theory of Income and Employment determination; full Employment and wage-price flexibility; Classical Dichotomy and Neutrality of Money.	Feb –May 2022	30
GE2	Introductory Macroeconomics ECO-G-CC-2-2-T H-TU/ ECO--GE-2-2-TH-TU/ECO-G-GE-2-2-TH-TU	UNIT 1. Introduction to Macroeconomics and National Income Accounting Unit 2 : The Simple Keynesian Model in a Closed Economy Unit 3 : The Classical System		Feb– May 2022	20
CC9	Economics Core Course IX: ECO-A-CC-4-9-T H-TU	Intermediate Macroeconomics II	<p>3. Economic Growth 35 lecture hours</p> <ul style="list-style-type: none"> <li>• Harrod and Domar models of economic growth.</li> <li>• Solow one sector growth model-golden rule- -dynamic efficiency.</li> <li>• Technological progress ,</li> <li>• Elements of endogenous growth theory-basic ideas-the AK model</li> </ul> <p>2. Macroeconomic Foundations -II 20 lecture hours</p> <ul style="list-style-type: none"> <li>• Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis; rational expectations and random-walk of consumption expenditure.</li> <li>• Demand for money: Regressive Expectations and Tobin's portfolio choice</li> </ul>	Feb2022 – May2022	55

			models; Baumol's inventory theoretic money demand.		
CC13	Economics Core Course XIII: ECO-A-CC-6-13-TH-TU	Public Economics	<p>Unit 1. Government in a Market Economy lecture hours</p> <ul style="list-style-type: none"> <li>• Market failure and externalities; public and merit goods;</li> <li>• Government intervention;</li> <li>• Public Expenditure for financing development</li> </ul> <p>Unit 2. Choice and Public Economics</p> <ul style="list-style-type: none"> <li>• Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good;</li> <li>• Market Failure in case of Pure Public Good Optimal provision of Public Goods - Private Provision and Public Provision of Public Goods,</li> <li>• Lindahl Equilibrium,</li> <li>• Voting Equilibrium.</li> </ul> <p>Unit 3. The Revenue and Expenditure of the Government</p> <ul style="list-style-type: none"> <li>• Classification of Taxes; Canons of Taxation;</li> <li>• Principles of Taxation - Benefit Principle, Equal Sacrifice Principle, Ability to Pay Principle;</li> <li>• Incidence and Burden of Taxes;</li> <li>• Effects of taxation on income distribution, work efforts, and on savings,</li> <li>• The Laffer curve;</li> <li>• Comparison between direct and indirect taxes – income and substitution effects;</li> <li>• Optimal Taxation</li> </ul>	Feb2022 -May2022	55

## Teaching Plan

**Department: Economics      Session:2022 -23 [Odd Semester]**

**Name of the teacher: Nandita Sen Chakraborty**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course					
CC1	Economics Core Course-I: ECO-A-CC-1- 1-TH-TU	Introductory Microecono mics	Unit 5: Government Intervention 5.1      The Economic Role of Government with respect to Market: (i) Price Ceiling, Price Floor and Market Adjustment (with short case studies of agricultural administered price, minimum wage and rent control); (ii) Black Market; (iii) Tax and market adjustment ; (iv) Elasticity and Tax incidence 5.2      Comparison of markets with and without government Unit 6: Utilitarian Approach (Focus on intuitive explanation and diagrams. Learning to analyze without using calculus a must) 6.1      The History of Utility Theory – From Cardinal to Ordinal Approach. 6.2      Utility in Cardinal Approach- Utility and choice, Total Utility and Marginal Utility, Utility and choice-maximization, marginal utility, theory of demand 6.3      Ordinal utility: Assumptions on preference ordering, indifference curve, marginal rate of substitution and convexity of IC, budget constraint, consumers' equilibrium-interior	Sep202 2 - Dec 2022	33



			and corner, Derivation of Demand Curves from ICs, composite good convention. Application: Cash subsidy versus subsidy in kind 6.4 Price consumption curve, Income consumption curve and Engel curve. Price effect - Income and Substitution effect (Hicks and Slutsky), inferior goods and Giffen goods, Marshallian and compensated demand curves		
CC6	Economics Core Course VI: ECO-A-CC-3-6-TH-TU	Intermediate Macroeconomics-I	<p>1. Income Determination in the Short-run (Part-II) : The IS-LM Models</p> <ul style="list-style-type: none"> <li>IS-LM Model - equilibrium, stability and comparative statics. Crowding out .Effects of fiscal and monetary policies.</li> </ul> <p>2. Aggregate Demand and Aggregate Supply- the Complete Keynesian Model</p> <ul style="list-style-type: none"> <li>Derivation of aggregate demand curve.</li> <li>Derivation of aggregate supply curves both in the presence and absence of wage rigidity.</li> <li>Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut.</li> <li>Unemployment equilibrium and its causes- possible solutions including real balance effect.</li> </ul> <p>3. Keynes vs. Classics</p> <ul style="list-style-type: none"> <li>Keynesian vs classical system.</li> <li>Hybrid models under Classical/Keynesian framework.</li> <li>Friedman's restatement of classical ideas</li> </ul>	July 2022-Dec 2022	55

			<p>4. Money Supply, Monetary Policy and Government Budgetary Operations</p> <ul style="list-style-type: none"> <li>Measures of money supply with special reference to India (M1,M2, M3 and M4)</li> <li>Balance sheet view of money supplied by the banking sector as a whole</li> <li>High powered money –definition</li> <li>Balance sheet of Reserve Bank of India and High powered money</li> <li>Balance sheet of Commercial banks and basic ideas of money multiplier theory.</li> <li>Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply</li> <li>Interest sensitivity of money supply and the slope of the LM curve.</li> </ul>		
CC11	Economics Core Course XI: ECO-A-CC-5-11-TH-TU	International Economics	<p>6. Open Economy Macroeconomics and Balance of Payments lecture hours</p> <ul style="list-style-type: none"> <li>Determination of equilibrium income in open economy. Foreign Trade Multiplier with &amp; without repercussion effects.</li> <li>Balance of Payment accounts in an open economy. Autonomous and accommodating transactions.</li> <li>Fixed &amp;Flexible Exchange Rates: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, The</li> </ul>	July 2022-Dec 2022	15

			Mundel-Fleming Model (IS LM BP model)		
GE1	ECO-G-CC-1-1-TH-TU/ ECO--GE-1-1-TH-TU/ECO-G-GE-1-1-TH-TU	Introductory Microeconomics	<p>4. The Firm and Perfect Market Structure</p> <ul style="list-style-type: none"> <li>Production function of a firm; total product, average product and marginal product; concept of isoquant ; returns to scale; behaviour of profit maximizing firms and the production process; the cost function, short run costs and output decisions; costs and output in the long run.</li> <li>Features of a perfectly competitive market. Short run equilibrium under perfect competition. Supply curve of a firm. Long run equilibrium under perfect competition.</li> </ul> <p>5. Imperfect Market Structure Monopoly equilibrium-differences with perfect competition. Basic ideas of price-discriminating monopolist .</p> <p>6. Input Markets The labour market - basic concepts - derived demand, productivity of an input; marginal productivity of labour, marginal revenue product); the land market- concepts of rent and quasi rent.</p>	July2022 – Dec2022	30
GE3	ECO-G-CC-3-3-TH-TU/ ECO--GE-3-3-TH-TU		<p>3. Development of the Dual Economy and Development Strategies 15 lecture hours</p> <ul style="list-style-type: none"> <li>Surplus labour and disguised unemployment-basic concepts; the Lewis model of economic development with unlimited supply of labour.</li> <li>Balanced and unbalanced growth as development strategies</li> </ul>	July2022 -Dec2022	15

## Teaching Plan

**Department:**        **Economics**                      **Session:2022 -23 [Even Semester]**

**Name of the teacher:** Nandita Sen Chakraborty

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course					
CC3	Economics Core Course III: ECO-A-CC-2-3 -TH-TU	Introductor y Macroecon omics	<p>2.        Income Determination in the Short Run (Part-I) :The Simple Keynesian Model in a Closed Economy The Simple Keynesian Model (SKM) in a Closed Economy without Government- the Keynesian</p> <p>Consumption Function; the Keynesian Saving Function; income determination in SKM; stability of equilibrium; the concept of effective demand- the concept of demand-determined output ; the Simple Keynesian Multiplier; the paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of tax changes and government purchases on budget surplus; the full employment budget surplus.</p> <p>3.        The Classical system Basic ideas of Classical Macroeconomics; Say's Law and Quantity Theory of Money, Loanable fund theory; the Classical Theory of Income and Employment determination; full Employment and</p>	Feb2023- May2023	55

			<p>wage-price flexibility; Classical Dichotomy and Neutrality of Money.</p> <p>4. Macroeconomic Foundations -I</p> <ul style="list-style-type: none"> <li>The bond market as the mirror image of the money market-the Walras' Law. Relationship between bond price and rate of interest- the concept of Keynesian liquidity preference schedule-speculative demand for money and liquidity trap.</li> <li>Investment function: Concepts of Marginal productivity of capital, marginal efficiency of capital (MEC) and marginal efficiency of investment (MEI)- Jorgenson's neo-classical theory- Acceleration principle- fixed and variable. Multiplier-accelerator</li> </ul>		
CC9	Economics Core Course IX: ECO-A-CC-4-9 -TH-TU	Intermediate Macroeconomics II	<p>2. Macroeconomic Foundations -II</p> <ul style="list-style-type: none"> <li>Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis; rational expectations and random-walk of consumption expenditure.</li> <li>Demand for money: Regressive Expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand.</li> </ul> <p>3. Economic Growth</p> <ul style="list-style-type: none"> <li>Harrod and Domar models of economic growth.</li> <li>Solow one sector growth model-golden rule- -dynamic efficiency.</li> <li>Technological progress ,</li> <li>Elements of endogenous growth theory-basic ideas-the AK model</li> </ul>	Feb2023-May2023	35

CC12	Economics Core Course XIII: ECO-A-CC-6-1 3-TH-TU	Public Economics	<p>Unit 1. Government in a Market Economy</p> <ul style="list-style-type: none"> <li>• Market failure and externalities; public and merit goods;</li> <li>• Government intervention;</li> <li>• Public Expenditure for financing development</li> </ul> <p>Unit 2. Choice and Public Economics</p> <ul style="list-style-type: none"> <li>• Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good;</li> <li>• Market Failure in case of Pure Public Good Optimal provision of Public Goods - Private Provision and Public Provision of Public Goods,</li> <li>• Lindahl Equilibrium,</li> <li>• Voting Equilibrium.</li> </ul> <p>Unit 3. The Revenue and Expenditure of the Government</p> <ul style="list-style-type: none"> <li>• Classification of Taxes; Canons of Taxation;</li> <li>• Principles of Taxation - Benefit Principle, Equal Sacrifice Principle, Ability to Pay Principle;</li> <li>• Incidence and Burden of Taxes;</li> <li>• Effects of taxation on income distribution, work efforts, and on savings,</li> <li>• The Laffer curve;</li> <li>• Comparison between direct and indirect taxes – income and substitution effects;</li> <li>• Optimal Taxation</li> </ul>	Feb2023-May2023	45
GE2	ECO-G-CC-2-2-TH-TU/ ECO--GE-2-2-TH-TU/ECO-G-GE-2-2-TH-TU	Introductory Macroeconomics	1. Introduction to Macroeconomics and National Income Accounting 14 lecture hours Basic issues of macroeconomics; measurement of gross domestic	Feb2023-May2023	15

			<p>product; distinction of gross domestic product with gross national product; net domestic product and net national product; net domestic product at market price and at factor cost-the concept of national income.</p> <p>Measurement of national income- income method and the expenditure method- circular flow of income; the concept of value added and the value added method of measuring national income; real versus nominal GDP.</p> <p>2. The Simple Keynesian Model in a Closed Economy 14 lecture hours</p> <p>The Keynesian consumption function and the Keynesian saving function.</p> <p>The Simple Keynesian Model of Income determination- the concept of effective demand-the Simple Keynesian Multiplier-the role of the government in Simple Keynesian Model</p>		
GE4	ECO-G-CC-4-4 -TH-TU/ ECO--GE-4-4-T H-TU	Indian Economic Policies	<p>2. Policies and Performance in Agriculture Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement.</p>	Feb2023-May2023	15

## Teaching Plan

**Department: Economics**

**Session:2022-2023**

**Name of the teacher: DR. GARGI BASU**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course	CC1 (Introductory Microeconomics)	1	Exploring the subject matter of Economics	September	10
		2	Demand and Supply: How Markets Work	November	10
		3	Market and Adjustments	November	10
		4	Market Sensitivity and Elasticity	December	12
		5	Government Intervention	December-January	8
	CC5 (Intermediate Microeconomics –I)	1	Theories of Consumer Behaviour and Applications	September-November	17
		2	Production and Costs	November-December-January	20
	CC7 (Statistical Methods for Economics)	1	Introduction and Overview	September	6
		2	Descriptive Statistics	November-December-January	13
	SEC I (Rural Development)	3	Rural Credit and Self Help Groups(SHG)	September-November-December	11
		4	Critical Evaluation of Selected Government Programmes and	December-January	8



			Rural Development		
	DSE B (Financial Economics)	1	Investment Theory and Portfolio Analysis	September-November	35
		2	Options and Derivatives	December-January	20
	CC3 (Introductory Macroeconomics)	1	National Income Accounting	March-April	20
		4	Macroeconomic Foundations -I	April-May	10
	CC8 (Intermediate Microeconomics II)	2	Input market under Imperfect Competition	February	5
		3	General Equilibrium, Efficiency and Welfare	March-April-May	30
	CC10 (Introductory Econometrics)	4	Statistical inference in linear regression model	February-March-April	26
		5	Statistical inference in linear regression model	April-May	12
	CC14 (Development Economics)	1	Meaning of Economic Development	February-March	10
		2	Poverty and Inequality	March-April	15
		4	Dual Economy Models	April-May	10
	DSE B2 (Environmental Economics)	1	Introduction	February	7
		2	Efficiency and Market Failure	March	18
		3	The Design and Implementation of	March-April	20

			Environmental Policy		
		4	International Environmental Problems	April-May	13
		5	Measuring the values of Environmental Costs and Benefits	May	17
	Generic CC4	3	Policies and Performance in Industry	March-April-May	21

**Session:2021-2022**

**Name of the teacher: DR. GARGI BASU**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC1 (Introductory Microeconomics)	1	Exploring the subject matter of Economics	September	10
		2	Demand and Supply: How Markets Work	October	10
		3	Market and Adjustments	November	10
		4	Market Sensitivity and Elasticity	December	12
		5	Government Intervention	December-January	8
	CC5 (Intermediate Microeconomics –I)	1	Theories of Consumer Behaviour and Applications	September-October	17
		2	Production and Costs	November-December-January	20
	CC7 (Statistical	1	Introduction and Overview	September	6

	Methods for Economics)				
		2	Descriptive Statistics	October-November-December-January	13
	SEC I (Rural Development)	3	Rural Credit and Self Help Groups(SHG's)	September-October	11
		4	Critical Evaluation of Selected Government Programmes and Rural Development	November-December	8
	DSE B (Financial Economics)	1	Investment Theory and Portfolio Analysis	November	35
		2	Options and Derivatives	December-January	20
	CC3 (Introductory Macroeconomics)	1	National Income Accounting	March-April	20
		4	Macroeconomic Foundations -I	April-May	10
	CC8 (Intermediate Microeconomics II)	2	Input market under Imperfect Competition	February	5
		3	General Equilibrium, Efficiency and Welfare	March-April-May	30
	CC10 (Introductory Econometrics)	4	Statistical inference in linear regression model	February-March-April	26
		5	Statistical inference in linear regression model	April-May	12
	CC14 (Development Economics)	1	Meaning of Economic Development	February-March	10

		2	Poverty and Inequality	March-April	15
		4	Dual Economy Models	April-May	10
	DSE A2 (Money and Financial Markets)	1	Introduction to money and Money and Banking	February	5
		2	Financial Institutions, Markets, Instruments and Financial Innovations	February-March	17
		3	Financial Markets and Interest Rates Behaviour	March-April	18
		4	Banking System	April	20
		5	Central Banking and Monetary Policy	May	15
	DSE B2 (Environmental Economics)	1	Introduction	February	7
		2	Efficiency and Market Failure	March	18
		3	The Design and Implementation of Environmental Policy	March-April	20
		4	International Environmental Problems	April-May	13
		5	Measuring the values of Environmental Costs and Benefits	May	17
	Generic CC4	2	Policies and Performance in Agriculture	March-April-May	21

**Session:2020-2021**

**Name of the teacher: DR. GARGI BASU**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Core Course	CC1 (Introductory Microeconomics)	1	Exploring the subject matter of Economics	October	8
		2	Demand and Supply: How Markets Work	November	8
		3	Market and Adjustments	November	8
		4	Market Sensitivity and Elasticity	December	10
		5	Government Intervention	December-January	8
	CC5 (Intermediate Microeconomics –I)	1	Theories of Consumer Behaviour and Applications	October-November	17
		2	Production and Costs	November-December-January	20
	CC7 (Statistical Methods for Economics)	1	Introduction and Overview	October	6
		2	Descriptive Statistics	November-December-January	13
	SEC I (Rural Development)	3	Rural Credit and Self Help Groups(SHG's)	October-November-December	11
		4	Critical Evaluation of Selected Government Programmes and Rural Development	December-January	8

	DSE B (Financial Economics)	1	Investment Theory and Portfolio Analysis	October-Nov ember	35
		2	Options and Derivatives	December-Ja nuary	20
	CC3 (Introductory Macroeconomi cs)	1	National Income Accounting	March-April	20
		4	Macroeconomic Foundations -I	April-May	10
	CC8 (Intermediate Microeconomi cs II)	2	Input market under Imperfect Competition	February	5
		3	General Equilibrium, Efficiency and Welfare	March-April- May	30
	CC10 (Introductory Econometrics)	4	Statistical inference in linear regression model	February-Ma rch-April	26
		5	Statistical inference in linear regression model	April-May	12
	CC14 (Development Economics)	1	Meaning of Economic Development	February	10
		2	Poverty and Inequality	February	15
		3	Dual Economy Models	March	20
		4	Population Growth and Economic Development	April	10
		5	Development Strategies	April	10
		6	Political Institutions and the State	May	10
	DSE B2 (Environment al	1	Introduction	February	7

	Economics)				
		2	Efficiency and Market Failure	March	18
		3	The Design and Implementation of Environmental Policy	March-April	20
		4	International Environmental Problems	April-May	13
		5	Measuring the values of Environmental Costs and Benefits	May	17
	Generic CC4	2	Policies and Performance in Agriculture	March-April-May	21

**Session:2019-2020**

**Name of the teacher: DR. GARGI BASU**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course	CC1 (Introductory Microeconomics)	1	Exploring the subject matter of Economics	October	8
		2	Demand and Supply: How Markets Work	November	8
		3	Market and Adjustments	November	8
		4	Market Sensitivity and Elasticity	December	10
		5	Government Intervention	December-January	8
	CC5 (Intermediate Microeconomics –I)	1	Theories of Consumer Behaviour and Applications	October-November	17

		2	Production and Costs	November-December-January	20
	CC7 (Statistical Methods for Economics)	1	Introduction and Overview	October	6
		2	Descriptive Statistics	November-December-January	13
	SEC I (Rural Development)	3	Rural Credit and Self Help Groups(SHG)	October-November-December	11
		4	Critical Evaluation of Selected Government Programmes and Rural Development	December-January	8
	CC3 (Introductory Macroeconomics)	1	National Income Accounting	March-April	20
		4	Macroeconomic Foundations -I	April-May	10
	CC8 (Intermediate Microeconomics II)	2	Input market under Imperfect Competition	February	5
		3	General Equilibrium, Efficiency and Welfare	March-April-May	30
	CC10 (Introductory Econometrics)	4	Statistical inference in linear regression model	February-March-April	26
		5	Statistical inference in linear regression model	April-May	12
Honours paper	VIA (Comparative Development Experience)	1	International comparisons of development	August	3



		2	Genesis of capitalism.	September	15
		3	Industrialization Experiences in Early Part of 20th Century.	September	12
		4	Post Second World War Development Scenario	October-November	20
		5	Development and underdevelopment as historical processes	November-December	5
		6	Evolution of New international economic order.	December	24
		7	Development policies and role of the state	December-January	5
		8	Some Recent Development Experiences	January	6
	VI B (Contemporary Economic Issues: India and West Bengal )	1	Economic Reform in India Since 1991	August	20
		2	Agriculture, Poverty and Social Security	August-September	13
		3	Post-reform performance of Indian Economy	September	4
		4	Indian economy: Some Current and Future Issues	September-October	18
		5	West Bengal Economy: An Overview	November	10
		6	Growth and Development of West Bengal Economy	December	15

	General 3rd year	IIIA -1	Indian Economy –An Overview	August	9
		IIIA-3	Demography	September, November	10
		IIIB-1	Indian Agriculture	December	10
		IIIB-2	Indian Industry	January	10
	Generic CC4	2	Policies and Performance in Agriculture	March-April-May	21

### Session:2018-2019

Name of the teacher: DR. GARGI BASU

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Core Course	CC1 (Introductory Microeconomics)	1	Exploring the subject matter of Economics	October	8
		2	Demand and Supply: How Markets Work	November	8
		3	Market and Adjustments	November	8
		4	Market Sensitivity and Elasticity	December	10
		5	Government Intervention	December-January	8
	CC3 (Introductory Macroeconomics)	1	National Income Accounting	March-April	20
		4	Macroeconomic Foundations -I	April-May	10
Honours paper (2nd year)	IV A (Development Theory)	1	Concepts and measures of development	August	8
		2	Process of Development – theoretical perspectives	September	10

		3	Factors in economic development	November	10
		4	Population and Development	November	4
		5	Development strategies	November-December	14
		6	Development in a Labour surplus economy	December	14
		7	Development, Inequality and poverty	January	14
		8	Environment and development	January	6
	IV B (Indian Economy Since Independence)	1	Indian Economy at the time of Independence	August	2
		2	Planning: Evolution of India's Development Goal and Strategy	September	30
		3	Land and Agriculture	November	20
		4	Industrial Development: Evolution, Trade and Policy	November-December	18
		5	Employment, Wages and Inflation	December	10
Honours paper (3rd year)	VIA (Comparative Development Experience)	1	International comparisons of development	August	3
		2	Genesis of capitalism.	September	15
		3	Industrialization Experiences in Early Part of 20th Century.	September	12
		4	Post Second World War	October-November	20

			Development Scenario		
		5	Development and underdevelopment as historical processes	November-December	5
		6	Evolution of New international economic order.	December	24
		7	Development policies and role of the state	December-January	5
		8	Some Recent Development Experiences	January	6
	VI B (Contemporary Economic Issues: India and West Bengal )	1	Economic Reform in India Since 1991	August	20
		2	Agriculture, Poverty and Social Security	August-September	13
		3	Post-reform performance of Indian Economy	September	4
		4	Indian economy: Some Current and Future Issues	September-October	18
		5	West Bengal Economy: An Overview	November	10
		6	Growth and Development of West Bengal Economy	December	15
	General 2nd year	II A (Microeconomics II)	Theory of Markets	August	10
		II B (Macroeconomics II)	Prices and Inflation	September, November	15

	General 3rd year (Indian Economy)	IIIA -1	Indian Economy –An Overview	August	9
		IIIA-3	Demography	September, November	10
		IIIB-1	Indian Agriculture	December	10
		IIIB-2	Indian Industry	January	10

## Teaching Plan

**Department:** English (Morning) **Session: Odd/ Semester 1**

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AE CC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC	CC1	History of English	1.The Age of Renaissance: Introduction	September	4
		Literature	2. The Origin of English Drama and University wits	September	5
			3. The University Wits	October/ November	5
			4. Metaphysical Poets	October/ November	4
			5. Ben Jonson	December	3

## Teaching Plan

**Department:** English (Morning) **Session: Even/ Semester 2**

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC	CC3	Indian Writing in English	<i>Bravely Fought the Queen</i>	March	12
	CC4	Renaissance Literature	1.Shakespearean Sonnets	March	6
			2. Metaphysical Poetry: Donne	April	4
			3. Metaphysical Poetry: Marvell	April	4
			4. <i>Macbeth</i>	April	10
				May	5
			5. Tutorial	May	6

## Teaching Plan

**Department:** English (Morning)      **Session:** Odd/ Semester 3

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC	CC5	American Poetry	1.Walt Whitman 2. Sylvia Plath	September	3+3
	CC6	Popular Literature	Agatha Christie: <i>Murder of Roger Ackroyd</i>	September	12
			<i>Murder of Roger Ackroyd</i>	October/ November	6
	CC7		Milton: <i>Paradise Lost</i>	October/November	12
			Aphra Behn: <i>The Rover Part I</i>	December	12
			Tutorial	December	6

## Teaching Plan

**Department:** English (Morning)      **Session:** Even/ Semester 4

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC	CC 9	Romantic Poetry	1.Introduction 2. Blake	February	4+6
			3. Coleridge 4. Keats	March	6+6
	CC10	19 <sup>th</sup> Century Literature	1.Browning	March	6
			2. <i>Pride and Prejudice</i>	April	12
			3. Tutorial	April	6

## Teaching Plan

**Department:** English (Morning)      **Session:** Odd/Semester 5

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC DSE	CC11	Women's Literature	1. <i>Wuthering Heights</i> 2. <i>A Vindication of the Rights of Woman</i>	September	9+9
			1. <i>Wuthering Heights</i>	October/November	3
	CC12	Modern Literature	1. Modern Poetry: Eliot, Yeats	October/November	3+3
	DSEA1	Translation Literature	<i>The Quilt, The Void, Waris Shah</i>	October/November	3
	DSEB1	Literary Types	Rhetoric & Prosody	October/November	6
			4. <i>Heart of Darkness</i>	December	12
			5. Tutorial	December	6

## Teaching Plan

**Department:** English (Morning)      **Session:** Even/ Semester 6

**Name of the teacher:** Mou Chattopadhyaya

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours CC	CC 13	Modern Drama	1. <i>Waiting for Godot</i>	February	15
			2. Tutorial	March	6
	CC14	20 <sup>th</sup> Century Novels	<i>Chronicles of a Death Foretold</i>	March	12
DSE	DSEA3	Partition Literature	<i>Shadow Lines</i>	April	18
	DSEB3	Autobiographies	<i>The Autobiography of an Unknown Indian</i>	May	12



## Teaching Plan

Department : English

Session : 2018 -2019

Name of the Teacher : Ananya Bhattacharyya

<b>Cours eType</b>	<b>Semest er</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub-unit Name</b>	<b>Month</b>	<b>No. of Classe s</b>
CC	SEM 1	CC 1	History of English Literature	Old English Heroic Poetry	August	4
				Anglo-Saxon Prose	September	2
				Chaucer	September	2
				Chaucer	September	2
			Philology	Word-Formation Processes	October	2
				Word-Formation Processes	October	2
				Revision (History of English Literature)	November	2
CC	SEM 1	CC 1	Philology	Revision (History of English Literature)	November	2
				Revision (Philology)	December	2
				Question Discussion	December	2
AECC	SEM 1	AECC ENGLISH		Error correction	August	2
				Error correction	September	2
				Transformation of Sentences	September	2
				Transformation of Sentences	October	2
				Revision (Error correction)	November	1
				Revision (Transformation of sentences)	November	1
				Reading Comprehension	December	2

				n		
				Mock-Test	December	1
GE	SEM 1	GE1	POETRY	Wordsworth – Strange Fits of Passion	August	2
				- d o -	August	1
				-do-	September	1
GE	SEM 1	GE 1	POETRY	Katherine Mansfield – The Fly	September	2
				-Do-	September	1
				-do-	October	1
				James Joyce - Araby	October	2
					November	2
				Revision (Poetry)	November	1
					December	1
				Revision (Short Story)	December	1
				Question – Answer Discussion	December	1
CC	SEM 2	CC3	POETRY	HENRY LOUIS VIVIAN DEROZIO- To India, My Native Land	February	2
					March	2
				Toru Dutt – Our Casuarina Tree	March	2
					April	2
				Kamala Das - Introduction	April	3
					May	1
				Revision	May	2
GE	SEM 2	GE2		George Orwell – Shooting an Elephant	February	1
					March	3
				George Bernard Shaw – Arms and the Man	March	1
					April	3
					May	1
				Revision	May	1

## Teaching Plan

Department : English

Session : 2019 - 2020

**Name of the Teacher : ANANYA BHATTACHARYYA**

Cours eType	Semest er	Paper	Unit Name	Sub-unit Name	Month	No · of Cl ass es
CC	SEM 1	CC 1	History of English Literature	Old English Heroic Poetry	August	4
				Anglo-Saxon Prose	Septemb er	2
				Chaucer	Septemb er	2
				Chaucer	Septemb er	2
			Philology	Word-Formation Processes	October	2
				Word-Formation Processes	October	2
				Revision (History of English Literature)	Novemb er	2
CC	SEM 1	CC 1	Philology	Revision (History of English Literature)	Novemb er	2
				Revision (Philology)	Decembe r	2
				Question Discussion	Decembe r	2
AECC	SEM 1	AECC ENGLISH		Error correction	August	2
				Error correction	Septemb er	2
				Transformation of Sentences	Septemb er	2
				Transformation of Sentences	October	2
				Revision (Error correction)	Novemb er	1
				Revision (Transformation of sentences)	Novemb er	1
				Reading Comprehension	Decembe r	2
					Decembe r	3
CC	SEM 3	CC 5	American	Edgar Allan Poe –	August	4

			Stories	The Purloined Letter		
				-do-	September	1
				William Faulkner – Dry September	September	4
				-do-	October	2
				Fitzgerald – Crack-Up	November	5
				Revision	December	3
				Question-Answer Discussion	December	2
SEC	SEM 3	SEC A1	TRANSLATION STUDIES	Importance of Translation in a multi-linguistic and multi-cultural world	August	02
				Free Translation	September	02
				Literal Translation	October	02
				Revision	November	02
				Translation Practice Exercises	December	02
GE	SEM 3	GE3	Women's Writing and Women's Empowerment	Elizabeth Barrett Browning -How Do I Love Thee?	August	4
				Emily Dickinson – “I cannot live with you”	September	4
				Rokeya sakhawat Hussain – Sultana's Dream	October	2
					November	04
				Revision	December	03

					August	1
					September	2
					October	2
					November	3
					December	3
LCC	SEM 3	LCC(L1) 1	Language and Communicatio n: Official and Personal	Introduction	August	2
			Language Varieties: Formal and Informal, Correct and Incorrect	Introduction	September	2
			Writing Letter	Personal Letter	September	2
				Business Letter	October	2
			Writing E-mail	Informal Email	November	2
				Formal Email	November	2
				Revision	December	3
GE	SEM 2	GE2		George Orwell – Shooting an Elephant	February	1
					March	3
				George Bernard Shaw – Arms and the Man	March	1
					April	3
					May	1
				Revision	May	1
					April	2
					May	2
CC	SEM 4	CC 8	Eighteenth Century British Literature	Samuel Johnson - London	March	4
					April	3
CC	SEM 4	CC9	British Romantic Literature	Mary Shelley - Frankenstein	April	5
					May	3
CC	SEM 4	CC10	19 <sup>TH</sup> Century British Literature	Christina Rossetti – Goblin Market	March- April	6
				Revision	May	3
SEC	SEM 4	SEC B2	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2

				Writing Critical Appreciation	April	3
GE	SEM 4	GE 4	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2
				Writing Critical Appreciation	April	3
				Revision	May	2

## Teaching Plan

Department : English

Session : 2020 - 2021

Name of the Teacher : **ANANYA BHATTACHARYYA**

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	History of English Literature	Old English Heroic Poetry	August	4
				Anglo - Saxon Prose	September	2
				Chaucer	September	2
				Chaucer	September	2
			Philology	Word-Formation Processes	October	2
				Word-Formation Processes	October	2
				Revision (History of English Literature)	November	2
CC	SEM 1	CC 1	Philology	Revision (History of English Literature)	November	2
				Revision (Philology)	December	2
				Question Discussion	December	2
AECC	SEM 1	AECC ENGLISH		Error correction	August	2
				Error correction	September	2
				Transformation of Sentences	September	2
				Transformation of Sentences	October	2
				Revision (Error correction)	November	1
				Revision (Transformation of sentences)	November	1
				Reading Comprehension	December	2

					December	3
CC	SEM 3	CC 5	American Stories	Edgar Allan Poe – The Purloined Letter	August	4
				-do-	September	1
				William Faulkner – Dry September	September	4
				-do-	October	2
				Fitzgerald – Crack-Up	November	5
CC	SEM 3	CC5	AMERICAN STORIES	TUTORIAL	OCTOBER-NOVEMBER	4
				Revision	December	3
				Question-Answer Discussion	December	2
SEC	SEM 3	SEC A1	TRANSLATION STUDIES	Importance of Translation in a multi-linguistic and multi-cultural world	August	02
				Free Translation	September	02
				Literal Translation	October	02
				Revision	November	02
				Translation Practice Exercises	December	02
CC	SEM 5	CC11	POETRY	Elizabeth Barrett Browning – How Do I Love Thee?	August-September	04
				Eunice De Souza-Advice to Women	September	03
				Emily Dickinson – I Cannot Live with You	October	02
				Mahasweta Devi - Draupadi	October-November	06
				Revision	December	04
DSE	SEM 5	DSE A1	Modern Indian Writing in English Translation	Rabindranath Tagore – Home and the World	November-December	06
DSE	SEM 5	DSE B1	Literary types, Rhetoric, Prosody	Comedy	September-October	04
LCC	SEM 5	LCC (L1)2	Language, Imagination	Language of Poetry – “Three	August - September	05



			n and Creativity	Years She Grew” by William Wordsworth		
				Creative use of language – Writing Story	October	02
				Writing travelogues	November	02
				Revision	December	02
				TUTORIAL	OCTOBER - DECEMBER	06
CC	SEM 2	CC3	POETRY	HENRY LOUIS VIVIAN DEROZIO- To India, My Native Land	February	2
					March	2
				Toru Dutt – Our Casuarina Tree	March	2
					April	2
				Kamala Das - Introduction	April	3
					May	1
				Revision	May	2
GE	SEM 2	GE2		George Orwell – Shooting an Elephant	February	1
					March	3
				George Bernard Shaw – Arms and the Man		1
						3
						1
				Revision	May	1
GE	SEM 2	GE2		Tutorial	April - May	04
CC	SEM 4	CC 8	Eighteenth Century British Literature	Samuel Johnson - London	March	4
					April	3
CC	SEM 4	CC9	British Romantic Literature	Mary Shelley - Frankenstein	April	5
					May	3
CC	SEM 4	CC10	19 <sup>TH</sup> Century British Literature	Christina Rossetti – Goblin Market	March - April	6
				Revision	May	3
SEC	SEM 4	SEC B2	Academic Writing	Introduction to	March	2

			and Composition	Writing Process		
				Introduction to Academic Writing	April	2
				Writing Critical Appreciation	April	3
GE	SEM 4	GE 4	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2
				Writing Critical Appreciation	April	3
				Revision	May	2
CC	SEM 6	CC14	POSTCOLONIAL LITERATURE	David Malouf – Revolving Days	February - March	5
DSE	SEM 6	DSE A3	PARTITION LITERATURE	Sadat Hasan Manto – Toba Tek Singh	March – April	06
				Manik Bandhopadhyay – The Final Solution	April -May	05
				TUTORIAL	APRIL- MAY	04

## Teaching Plan

Department : English

Session : 2021 - 2022

Name of the Teacher : **ANANYA BHATTACHARYYA**

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	History of English Literature	Old English Heroic Poetry	August	4
				Anglo - Saxon Prose	September	2
				Chaucer	September	2
				Chaucer	September	2
			Philology	Word-Formation Processes	October	2
				Word-Formation Processes	October	2
				Revision (History of English Literature)	November	2
CC	SEM 1	CC 1	Philology	Revision (History of English Literature)	November	2
				Revision (Philology)	December	2
				Question Discussion	December	2
AECC	SEM 1	AECC ENGLISH		Error correction	August	2
				Error correction	September	2
				Transformation of Sentences	September	2
				Transformation of Sentences	October	2
				Revision (Error correction)	November	1
				Revision (Transformation of sentences)	November	1
				Reading Comprehension	December	2
					December	3

CC	SEM 3	CC 5	American Stories	Edgar Allan Poe – The Purloined Letter	August	4
				-do-	September	1
				William Faulkner – Dry September	September	4
				-do-	October	2
				Fitzgerald – Crack-Up	November	5
CC	SEM 3	CC5	AMERICAN STORIES	TUTORIAL	OCTOBER-NOVEMBER	4
				Revision	December	3
				Question-Answer Discussion	December	2
SEC	SEM 3	SEC A2	BUSINESS COMMUNICATION	What Is Business Communication	August	02
				Writing reports, Letters, Curriculum Vitae	September	02
				CV WRITING	October - November	04
				Email Writing	November	03
				Practice Exercises	December	03
CC	SEM 5	CC11	POETRY	Elizabeth Barrett Browning – How Do I Love Thee?	August-September	04
				Eunice De Souza-Advice to Women	September	03
				Emily Dickinson – I Cannot Live with You	October	02
				Mahasweta Devi - Draupadi	October-November	06
				Revision	December	04
DSE	SEM 5	DSE A1	Modern Indian Writing in English Translation	Rabindranath Tagore – Home and the World	November-December	06
DSE	SEM 5	DSE B1	Literary types, Rhetoric, Prosody	Comedy	September-October	04
LCC	SEM 5	LCC (L1)2	Language, Imagination and Creativity	Language of Poetry – “Three Years She Grew” by William	August - September	05

				Wordsworth		
				Creative use of language – Writing Story	October	02
				Writing travelogues	November	02
				Revision	December	02
				TUTORIAL	OCTOBER - DECEMBER	06
CC	SEM 2	CC3	POETRY	HENRY LOUIS VIVIAN DEROZIO- To India, My Native Land	February	2
					March	2
				Toru Dutt – Our Casuarina Tree	March	2
					April	2
				Kamala Das - Introduction	April	3
					May	1
				Revision	May	2
GE	SEM 2	GE2		George Orwell – Shooting an Elephant	February	1
					March	3
				George Bernard Shaw – Arms and the Man		1
						3
						1
				Revision	May	1
GE	SEM 2	GE2		Tutorial	April - May	04
CC	SEM 4	CC 8	Eighteenth Century British Literature	Samuel Johnson - London	March	4
					April	3
CC	SEM 4	CC9	British Romantic Literature	Mary Shelley - Frankenstein	April	5
					May	3
CC	SEM 4	CC10	19 <sup>TH</sup> Century British Literature	Christina Rossetti – Goblin Market	March - April	6
				Revision	May	3
SEC	SEM 4	SEC B2	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to	April	2

				Academic Writing		
				Writing Critical Appreciation	April	3
GE	SEM 4	GE 4	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2
				Writing Critical Appreciation	April	3
				Revision	May	2
CC	SEM 6	CC14	POSTCOLONIAL LITERATURE	David Malouf – Revolving Days	February - March	5
DSE	SEM 6	DSE A3	PARTITION LITERATURE	Sadat Hasan Manto – Toba Tek Singh	March – April	06
				Manik Bandhopadhyay – The Final Solution	April -May	05
				TUTORIAL	APRIL- MAY	04

## Teaching Plan

Department : English

Session : 2022 - 2023

Name of the Teacher : **ANANYA BHATTACHARYYA**

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	History of English Literature	Old English Heroic Poetry	August	4
				Anglo - Saxon Prose	September	2
				Chaucer	September	2
				Chaucer	September	2
			Philology	Word-Formation Processes	October	2
				Word-Formation Processes	October	2
				Revision (History of English Literature)	November	2
CC	SEM 1	CC 1	Philology	Revision (History of English Literature)	November	2
				Revision (Philology)	December	2
				Question Discussion	December	2
AECC	SEM 1	AECC ENGLISH		Error correction	August	2
				Error correction	September	2
				Transformation of Sentences	September	2
				Transformation of Sentences	October	2
				Revision (Error correction)	November	1
				Revision (Transformation of sentences)	November	1
				Reading Comprehension	December	2
					December	3
CC	SEM 3	CC 5	American Stories	Edgar Allan	August	4

				Poe – The Purloined Letter		
				-do-	September	1
				William Faulkner – Dry September	September	4
				-do-	October	2
				Fitzgerald – Crack-Up	November	5
CC	SEM 3	CC5	AMERICAN STORIES	TUTORIAL	OCTOBER-NOVEMBER	4
				Revision	December	3
				Question-Answer Discussion	December	2
SEC	SEM 3	SEC A2	BUSINESS COMMUNICATION	What Is Business Communication	August	02
				Writing reports, Letters, Curriculum Vitae	September	02
				CV WRITING	October - November	04
				Email Writing	November	03
				Practice Exercises	December	03
CC	SEM 5	CC11	POETRY	Elizabeth Barrett Browning – How Do I Love Thee?	August-September	04
				Eunice De Souza-Advice to Women	September	03
				Emily Dickinson – I Cannot Live with You	October	02
				Mahasweta Devi - Draupadi	October-November	06
				Revision	December	04
DSE	SEM 5	DSE A1	Modern Indian Writing in English Translation	Rabindranath Tagore – Home and the World	November-December	06
DSE	SEM 5	DSE B1	Literary types, Rhetoric, Prosody	Comedy	September-October	04
LCC	SEM 5	LCC (L1)2	Language, Imagination and Creativity	Language of Poetry – “Three Years She Grew” by William Wordsworth	August - September	05



				Creative use of language – Writing Story	October	02
				Writing travelogues	November	02
				Revision	December	02
				TUTORIAL	OCTOBER - DECEMBER	06
CC	SEM 2	CC3	POETRY	HENRY LOUIS VIVIAN DEROZIO- To India, My Native Land	February	2
					March	2
				Toru Dutt – Our Casuarina Tree	March	2
					April	2
				Kamala Das - Introduction	April	3
					May	1
				Revision	May	2
GE	SEM 2	GE2		George Orwell – Shooting an Elephant	February	1
					March	3
				George Bernard Shaw – Arms and the Man		1
						3
						1
				Revision	May	1
GE	SEM 2	GE2		Tutorial	April - May	04
CC	SEM 4	CC 8	Eighteenth Century British Literature	Samuel Johnson - London	March	4
					April	3
CC	SEM 4	CC9	British Romantic Literature	Mary Shelley - Frankenstein	April	5
					May	3
CC	SEM 4	CC10	19 <sup>TH</sup> Century British Literature	Christina Rossetti – Goblin Market	March - April	6
				Revision	May	3
SEC	SEM 4	SEC B2	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2

				Writing Critical Appreciation	April	3
GE	SEM 4	GE 4	Academic Writing and Composition	Introduction to Writing Process	March	2
				Introduction to Academic Writing	April	2
				Writing Critical Appreciation	April	3
				Revision	May	2
CC	SEM 6	CC14	POSTCOLONIAL LITERATURE	David Malouf – Revolving Days	February - March	5
DSE	SEM 6	DSE A3	PARTITION LITERATURE	Sadat Hasan Manto – Toba Tek Singh	March – April	06
				Manik Bandhopadhyay – The Final Solution	April -May	05
				TUTORIAL	APRIL - MAY	04

# Teaching Plan

**Department: English**

**Session: 2018-2019**

**Name of the teacher: Sirshendu Bhaumik**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Semester</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC	CC 1	I	Unit C	Restoration Comedy of Manners	August	3
CC	CC 1	I	Unit C	Eighteenth Century Novels	August	3
CC	CC 1	I	Unit D	Pre-Romantic Poetry	Septemb er	2
CC	CC 1	I	Unit D	Romantic Non- fiction Prose	Septemb er	2
CC	CC 2	I	Group C	Pot of Gold	Septemb er	4
AECC	AECC 1	I	Grammar	Correction of Sentences	August	3
AECC	AECC 1	I	Grammar	Transformation of Sentences	Septemb er	3
AECC	AECC 1	I	Comprehensi on	Reading Comprehension	Novemb er	3
CC	CC 3	II	Poetry	River	March	2
CC	CC 3	II	Poetry	Dawn at Puri	April	2
CC	CC 4	II	Poetry	Wife of Bath's Prologue	April	3
GE	GE 2	II	Essay	Dream Children: A Reverie	March	3

# Teaching Plan

**Department: English**

**Session: 2019-2020**

**Name of the teacher: Sirshendu Bhaumik**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Semester	Unit name	Sub-unit name	Month	No. of classes
CC	CC 1	I	Unit C	Restoration Comedy of Manners	August	3
CC	CC 1	I	Unit C	Eighteenth Century Novels	August	3
CC	CC 1	I	Unit D	Pre-Romantic Poetry	Septemb er	2
CC	CC 1	I	Unit D	Romantic Non- fiction Prose	Septemb er	2
CC	CC 2	I	Group C	Pot of Gold	Septemb er	4
AECC	AECC 1	I	Grammar	Correction of Sentences	August	3
AECC	AECC 1	I	Grammar	Transformation of Sentences	Septemb er	3
AECC	AECC 1	I	Comprehensi on	Reading Comprehension	Novemb er	3
CC	CC 3	II	Poetry	River	March	2
CC	CC 3	II	Poetry	Dawn at Puri	April	2
CC	CC 4	II	Poetry	Wife of Bath's Prologue	April	3
GE	GE 2	II	Essay	Dream Children: A Reverie	March	3
CC	CC 5	III	Poetry	After Apple Picking	Septemb er	2
CC	CC 5	III	Poetry	Harlem to be Answered	Septemb er	3
CC	CC 5	III	Poetry	Death of a Salesman	Novemb er	5
CC	CC 6	III	Graphic Novel	Tintin in Tibet	Novemb er	4
SEC	SEC A2	III	Business Communicati on	Writing Letters, Curriculum Vitae	Novemb er	6
GE	GE 3	III	Poetry	Palanquin Bearers	August	1
GE	GE 3	III	Poetry	Uphill	August	1
LCC	LCC L1-1	III	Language, Variety and Stylistics	Writing Letters, Writing Reports	Septemb er	4

CC	CC 8	IV	Prose Fiction and Non- Fiction	Robinson Crusoe	March	6
CC	CC 9	IV	Poetry	To a Skylark	April	3
CC	CC 9	IV	Poetry	Ode to the West Wind	April	2
CC	CC 10	IV	Novel	The Mayor of Casterbridge	May	4
SEC	SEC B2	IV	Academic Writing	Writing Essay, Citing Sources	March	6
GE	GE 4	IV	Academic Writing	Critical Appreciation, Writing Essay	March/ April	6

# Teaching Plan

**Department: English**

**Session: 2020-2021**

**Name of the teacher: Sirshendu Bhaumik**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Semester	Unit name	Sub-unit name	Month	No. of classes
CC	CC 1	I	Unit C	Restoration Comedy of Manners	August	3
CC	CC 1	I	Unit C	Eighteenth Century Novels	August	3
CC	CC 1	I	Unit D	Pre-Romantic Poetry	Septemb er	2
CC	CC 1	I	Unit D	Romantic Non- fiction Prose	Septemb er	2
CC	CC 2	I	Group C	Pot of Gold	Septemb er	4
AECC	AECC 1	I	Grammar	Correction of Sentences	August	3
AECC	AECC 1	I	Grammar	Transformation of Sentences	Septemb er	3
AECC	AECC 1	I	Comprehensi on	Reading Comprehension	Novemb er	3
CC	CC 3	II	Poetry	River	March	2
CC	CC 3	II	Poetry	Dawn at Puri	April	2
CC	CC 4	II	Poetry	Wife of Bath's Prologue	April	3
GE	GE 2	II	Essay	Dream Children: A Reverie	March	3
CC	CC 5	III	Poetry	After Apple Picking	Septemb er	2
CC	CC 5	III	Poetry	Harlem to be Answered	Septemb er	3
CC	CC 5	III	Poetry	Death of a Salesman	Novemb er	5
CC	CC 6	III	Graphic Novel	Tintin in Tibet	Novemb er	4
SEC	SEC A2	III	Business Communicati on	Writing Letters, Curriculum Vitae	Novemb er	6
GE	GE 3	III	Poetry	Palanquin Bearers	August	1
GE	GE 3	III	Poetry	Uphill	August	1
LCC	LCC L1-1	III	Language, Variety and Stylistics	Writing Letters, Writing Reports	August/ Septemb er	4

CC	CC 8	IV	Prose Fiction and Non-Fiction	Robinson Crusoe	March	6
CC	CC 9	IV	Poetry	To a Skylark	April	3
CC	CC 9	IV	Poetry	Ode to the West Wind	April	2
CC	CC 10	IV	Novel	The Mayor of Casterbridge	May	4
SEC	SEC B2	IV	Academic Writing	Writing Essay, Citing Sources	March	6
GE	GE 4	IV	Academic Writing	Critical Appreciation, Writing Essay	March/ April	6
CC	CC 11	V	Poetry	I Cannot Live with You	August	2
CC	CC 12	V	Poetry	Spring Offensive	August	2
DSE	DSE A1	V	Drama	Silence! The Court is in Session	September	4
LCC	LCC L1-2	V	Language, Imagination and Creativity	Break! Break! Break!	September	2
CC	CC 14	VI	Poetry	A Far Cry from Africa	March	3
DSE	DSE A3	VI	Poetry	26 January	April	1
DSE	DSE A3	VI	Poetry	After Death: Twenty Years	May	2

# Teaching Plan

**Department: English**

**Session: 2021-2022**

**Name of the teacher: Sirshendu Bhaumik**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Semester	Unit name	Sub-unit name	Month	No. of classes
CC	CC 1	I	Unit C	Restoration Comedy of Manners	August	3
CC	CC 1	I	Unit C	Eighteenth Century Novels	August	3
CC	CC 1	I	Unit D	Pre-Romantic Poetry	Septemb er	2
CC	CC 1	I	Unit D	Romantic Non- fiction Prose	Septemb er	2
CC	CC 2	I	Group C	Pot of Gold	Septemb er	4
AECC	AECC 1	I	Grammar	Correction of Sentences	August	3
AECC	AECC 1	I	Grammar	Transformation of Sentences	Septemb er	3
AECC	AECC 1	I	Comprehensi on	Reading Comprehension	Novemb er	3
CC	CC 3	II	Poetry	River	March	2
CC	CC 3	II	Poetry	Dawn at Puri	April	2
CC	CC 4	II	Poetry	Wife of Bath's Prologue	April	3
GE	GE 2	II	Essay	Dream Children: A Reverie	March	3
CC	CC 5	III	Poetry	After Apple Picking	Septemb er	2
CC	CC 5	III	Poetry	Harlem to be Answered	Septemb er	3
CC	CC 5	III	Poetry	Death of a Salesman	Novemb er	5
CC	CC 6	III	Graphic Novel	Tintin in Tibet	Novemb er	4
SEC	SEC A2	III	Business Communicati on	Writing Letters, Curriculum Vitae	Novemb er	6
GE	GE 3	III	Poetry	Palanquin Bearers	August	1
GE	GE 3	III	Poetry	Uphill	August	1
LCC	LCC L1-1	III	Language, Variety and Stylistics	Writing Letters, Writing Reports	Septemb er	4



CC	CC 8	IV	Prose Fiction and Non-Fiction	Robinson Crusoe	March	6
CC	CC 9	IV	Poetry	To a Skylark	April	3
CC	CC 9	IV	Poetry	Ode to the West Wind	April	2
CC	CC 10	IV	Novel	The Mayor of Casterbridge	May	4
SEC	SEC B2	IV	Academic Writing	Writing Essay, Citing Sources	March	6
GE	GE 4	IV	Academic Writing	Critical Appreciation, Writing Essay	March/ April	6
CC	CC 11	V	Poetry	I Cannot Live with You	August	2
CC	CC 12	V	Poetry	Spring Offensive	August	2
DSE	DSE A1	V	Drama	Silence! The Court is in Session	September	4
LCC	LCC L1-2	V	Language, Imagination and Creativity	Break! Break! Break!	September	2
CC	CC 14	VI	Poetry	A Far Cry from Africa	March	3
DSE	DSE A3	VI	Poetry	26 January	April	1
DSE	DSE A3	VI	Poetry	After Death: Twenty Years	May	2

# Teaching Plan

**Department: English**

**Session: 2022-2023**

**Name of the teacher: Sirshendu Bhaumik**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Semester	Unit name	Sub-unit name	Month	No. of classes
CC	CC 1	I	Unit C	Restoration Comedy of Manners	August	3
CC	CC 1	I	Unit C	Eighteenth Century Novels	August	3
CC	CC 1	I	Unit D	Pre-Romantic Poetry	Septemb er	2
CC	CC 1	I	Unit D	Romantic Non- fiction Prose	Septemb er	2
CC	CC 2	I	Group C	Pot of Gold	Septemb er	4
AECC	AECC 1	I	Grammar	Correction of Sentences	August	3
AECC	AECC 1	I	Grammar	Transformation of Sentences	Septemb er	3
AECC	AECC 1	I	Comprehensi on	Reading Comprehension	Novemb er	3
CC	CC 3	II	Poetry	River	March	2
CC	CC 3	II	Poetry	Dawn at Puri	April	2
CC	CC 4	II	Poetry	Wife of Bath's Prologue	April	3
GE	GE 2	II	Essay	Dream Children: A Reverie	March	3
CC	CC 5	III	Poetry	After Apple Picking	Septemb er	2
CC	CC 5	III	Poetry	Harlem to be Answered	Septemb er	3
CC	CC 5	III	Poetry	Death of a Salesman	Novemb er	5
CC	CC 6	III	Graphic Novel	Tintin in Tibet	Novemb er	4
SEC	SEC A2	III	Business Communicati on	Writing Letters, Curriculum Vitae	Novemb er	6
GE	GE 3	III	Poetry	Palanquin Bearers	August	1
GE	GE 3	III	Poetry	Uphill	August	1
LCC	LCC L1-1	III	Language, Variety and Stylistics	Writing Letters, Writing Reports	Septemb er	4

CC	CC 8	IV	Prose Fiction and Non-Fiction	Robinson Crusoe	March	6
CC	CC 9	IV	Poetry	To a Skylark	April	3
CC	CC 9	IV	Poetry	Ode to the West Wind	April	2
CC	CC 10	IV	Novel	The Mayor of Casterbridge	May	4
SEC	SEC B2	IV	Academic Writing	Writing Essay, Citing Sources	March	6
GE	GE 4	IV	Academic Writing	Critical Appreciation, Writing Essay	March/ April	6
CC	CC 11	V	Poetry	I Cannot Live with You	August	2
CC	CC 12	V	Poetry	Spring Offensive	August	2
DSE	DSE A1	V	Drama	Silence! The Court is in Session	September	4
LCC	LCC L1-2	V	Language, Imagination and Creativity	Break! Break! Break!	September	2
CC	CC 14	VI	Poetry	A Far Cry from Africa	March	3
DSE	DSE A3	VI	Poetry	26 January	April	1
DSE	DSE A3	VI	Poetry	After Death: Twenty Years	May	2

## Teaching Plan

Department : English

Session : 2018 -2019

Name of the Teacher : Sraboni Chakraborti

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	E	Victorian Novels	August	1
				-do-	August	2
				-do-	August	2
				-do-	September	2
			E	Pre-Raphaelites	September	3
				-do-	October	2
				Question Discussion	December	4
CC	SEM 1	CC 1	Philology	Introduction	August	1
				Scandinavian Influence	September	2
				French Influence	September	2
				Latin Influence	October	4
				Americanism	November	3
				Question Discussion	December	3
GE	SEM 1	GE 1	Tutorial		August	3
					September	4
					October	2
					November	2
					December	3
CC	SEM 1	CC 3	Novel	Rajmohan's Wife	March	8
				-do-	April	8
				-do-	May	4
GE	SEM 2	GE 2	Novel	Mayor of Casterbridge	March	7
				-do-	April	6
				-do-	May	2
GE	SEM2	GE 2	Tutorial		March	1
					April	2
					May	2

## Teaching Plan

Department : English

Session : 2019 - 2020

Name of the Teacher : Sraboni Chakraborti

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	E	Victorian Novels	August	1
				-do-	August	2
				-do-	August	2
				-do-	September	2
			E	Pre-Raphaelites	September	3
				-do-	November	2
				Question Discussion	December	4
CC	SEM 1	CC 1	Philology	Introduction	August	1
				Scandinavian Influence	September	2
				French Influence	September	2
				Latin Influence	November & December	2
				Americanism	December	3
				Question Discussion	January	3
GE	SEM1	GE 1	Tutorial		August	3
					September	4
					October	3
					November	1
					December	3
CC	SEM 3	CC 5	Novel	Old man and the Sea	August	4
				-do-	September	8
				-do-	October	2
				-do-	November	5
				-do-	December	6
GE	SEM 3	GE 3	Prose (Non-Fiction)	My Life (Amar Jibon)	August	7
				-do-	September	6
				-do-	October	2
				-do-	November	4
				-do-	December	3

GE	SEM 3	GE 3	Tutorial		August	1
					September	2
					October	2
					November	3
					December	3
LCC	SEM 3	LCC(L1) 1	British & American English		August	2
					September	2
LCC	SEM 3	LCC(L1) 1	Tutorial		September	2
					October	3
					November	1
					December	3
CC	SEM 2	CC 3	Novel	Rajmohan's Wife		8
				-do-	April	8
				-do-	May	4
GE	SEM 2	GE 2	Novel	Mayor of Casterbridge	March	7
				-do-	April	6
				-do-	May	2
GE	SEM 2	GE 2	Tutorial		March	1
					April	2
					May	2
CC	SEM 4	CC 9	Prose (Non- Fiction)	Dream Children	March	4
CC	SEM 4	CC 9	Prose (Non- Fiction)	The Superannuated Man	April	5
CC	SEM 4	CC10	Poetry	Ulysses	March	3
CC	SEM 4	CC 10	Poetry	Dover Beach	April	2
SEC	SEM 4	Sec B2	Summarising	Summary Writing	March -April	2
				Critical Note	May	2
SEC	SEM 4	SEC B2	Paraphrasing		May	2
GE	SEM 4	GE 4	Prose (Non- Fiction)	My Life (Amar Jibon)	March	7
				-do-	April	5
				-do-	May	2
GE	SEM 4	GE 4	Tutorial		March	1
					April	3
					May	2

## Teaching Plan

Department : English

Session : 2020 - 2021

Name of the Teacher : Sraboni Chakraborti

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	E	Victorian Novels	August	1
				-do-	August	2
				-do-	August	2
				-do-	September	2
			E	Pre-Raphaelites	September	3
				-do-	November	2
				Question Discussion	December	4
CC	SEM 1	CC 1	Philology	Introduction	August	1
				Scandinavian Influence	September	2
				French Influence	September	2
				Latin Influence	October	4
				Americanism	November	3
				Question Discussion	December	3
CC	SEM 1	CC1	Tutorial		September	1
					October	2
					December	3
CC	SEM 3	CC 5	Novel	Old Man and the Sea	September	10
				-do-	October	9
				-do-	November	2
				-do-	December	9
GE	SEM 3	GE 3	Prose (Non – Fiction)	My Life (Amar Jibon)	August	8
				-do-	September	8
				-do-	October	3
				-do-	November	5
				-do-	December	6
LCC	SEM 3	LCC(L1) 1	British & American English		August	2

					September	2
LCC	SEM 3	LCC(L1) 1	Tutorial		September	2
					October	3
					November	2
					December	3
CC	SEM 5	CC 11	Prose (Non – Fiction)	My Life (Amar Jibon)	August	4
				-do-	September	8
				-do-	October	6
				-do-	November	4
				Question Discussion	December	2
CC	SEM 5	CC 12	Drama	Pygmalion	August	4
				-do-	September	4
				-do-	October	6
				-do-	November	4
				-do-	December	6
				Question Discussion	December	2
DSE	SEM 5	DSE A1	Poetry	Gitanjali XXVII	August	4
				Question Discussion	December	1
DSE	SEM 5	DSE A1	Poetry	Gitanjali XCVII	August	4
				Question Discussion	December	1
DSE	SEM 5	DSE B1	Literary Type	Short Story	September	3
				-do-	November	3
LCC	SEM 5	LCC(L1) 2	Poetry	Gitanjali No.50	August	1
				-do-	September	1
LCC	SEM 5	LCC(L1) 2	Poetry	India My Native Land	September	2
			Plain Language & Figurative Language	Use Figures of Speech	September	2
				-do-	October	3
				-do-	November	2
				-do-	December	3
CC	SEM 2	CC 3	Novel	Rajmohan's Wife	March	6
				-do-	April	6
				-do-	May	4
CC	SEM 2	CC 3	Tutorial		March	2
					April	2
					May	2



GE	SEM 2	GE 2	Novel	Mayor of Casterbridge	March	8
				-do-	April	8
				-do-	May	4
CC	SEM 4	CC 8	Prose (Non-Fiction)	Sir Roger at Home	April	4
CC	SEM 4	CC 8	Prose (Non-Fiction)	Sir Roger at Church	April	2
				-do-	May	2
CC	SEM 4	CC 9	Prose (Non-Fiction)	Dream Childern	March	3
CC	SEM 4	CC 9	Prose (Non-Fiction)	The Superannuated Man	March	1
				-do-	April	3
CC	SEM 4	CC 10	Poetry	Ulysses	March	4
CC	SEM 4	CC 10	Poetry	Dover Beach	April	3
SEC	SEM 4	SEC B2	Summarising	Summary Writing	March	2
				-do-	April	3
				Critical Note	May	3
	SEM 4		Paraphrasing		May	3
GE	SEM 4	GE 4	Summarising	Summary Writing	March	8
				Critical Note	April	6
	SEM 4		Paraphrasing		April	2
					May	4
CC	SEM 6	CC 14	Poetry	Voice of the Mountain	April	3
				Question Discussion	May	1
DSE	SEM 6	DSE A3	Short Story	Marooned	March	4
				Question Discussion	May	1
DSE	SEM 6	DSE A3	Poetry	Rehabilitation	April	4
				Question Discussion	May	1
DSE	SEM 6	DSE B3	Autobiography	My Reminiscences	February	2
				-do-	March	12
				-do-	April	5
				Question Discussion	May	2
DSE	SEM 6	DSE B3	Tutorial		March	2
					April	4
					May	2

## Teaching Plan

Department : English

Session : 2021 - 2022

Name of the Teacher : Sraboni Chakraborti

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	E	Victorian Novels	August	1
				-do-	August	2
				-do-	August	2
				-do-	September	2
CC	SEM 1		E	Pre-Raphaelites	September	3
				-do-	October	2
				Question Discussion	December	4
CC	SEM 1	CC 1	Philology	Introduction	August	1
				Scandinavian Influence	September	2
				French Influence	September	2
				Latin Influence	October - November	4
				Americanism	November	3
				Question Discussion	December	3
CC	SEM 1	CC 1	Tutorial		September	1
					October	2
					November	2
					December	2
CC	SEM 3	CC 5	Novel	Old Man and the Sea	September	10
				-do-	October	4
				-do-	November	8
				-do-	December	9
GE	SEM 3	GE 3	Prose (Non-Fiction)	My Life (Amar Jibon)	August	8
				-do-	September	8
				-do-	October	3
				-do-	November	5
				-do-	December	6
LCC	SEM 3	LCC(L1) 1	British & American English		August	2

					September	2
LCC	SEM 3	LCC(L1) 1	Tutorial		October	2
					November	3
					December	3
CC	SEM 5	CC 11	Prose (Non-Fiction)	My Life (Amar Jibon)	August	4
				-do-	September	8
				-do-	October	4
				-do-	November	6
				Question Discussion	December	2
CC	SEM 5	CC 12	Drama	Pygmalion	August	4
				-do-	September	4
				-do-	October	4
				-do-	November	6
				Question Discussion	December	2
DSE	SEM 5	DSE A1	Poetry	Gitanjali XXVII	August	4
				Question Discussion	December	2
DSE	SEM 5	DSE A 1	Poetry	Gitanjali XCVII	September	4
				Question Discussion	December	2
DSE	SEM 5	DSE B1	Literary Type	Short Story	September	3
				-do-	November	3
LCC	SEM 5	LCC(L1) 2	Poetry	Gitanjali No.50	August	2
LCC	SEM 5	LCC(L1) 2	Poetry	India My Native Land	September	2
LCC	SEM 5	LCC(L1) 2	Plain Language & Figurative Language	Use of Figures of Speech	September	1
				-do-	October	2
				-do-	November	2
				-do-	December	3
CC	SEM 2	CC 3	Novel	Rajmohan's Wife	March	6
				-do-	April	6
				-do-	May	2
CC	SEM 2	CC 3	Tutorial		March	2
					April	2
					May	2
GE	SEM 2	GE 2	Novel	Mayor of Casterbridge	March	8
				-do-	April	8

				-do-	May	4
CC	SEM 4	CC 8	Prose (Non-Fiction)	Sir Roger at Home	April	4
CC	SEM 4	CC 8	Prose (Non-Fiction)	Sir Roger at Church	April	2
				-do-	May	2
CC 9	SEM 4	CC 9	Prose (Non-Fiction)	Dream Childern	March	3
CC	SEM 4	CC 9	Prose (Non-Fiction)	The Superannuated Man	March	1
				-do-	April	3
CC	SEM 4	CC 9	Tutorial		March	1
					April	3
					May	2
CC	SEM 4	CC 10	Poetry	Ulysses	March	4
CC	SEM 4	CC 10	Poetry	Dover Beach	April	3
SEC	SEM 4	SEC B2	Summarising	Summary Writing	March	2
				-do-	April	3
				Critical Note	May	2
SEC	SEM 4	SEC B2	Paraphrasing		May	3
GE		GE 4	Summarising	Summary Writing	March	7
				Critical Note	April	6
GE	SEM 4	GE 4	Paraphrasing		April	2
					May	4
CC	SEM 6	CC 14	Poetry	Voice of the Mountain	April	3
				Question Discussion	May	1
DSE	SEM 6	DSE A3	Short Story	Marooned	March	4
				Question Discussion	May	1
DSE	SEM 6	DSE A3	Poetry	Rehabilitation	April	4
				Question Discussion	May	1
DSE	SEM 6	DSE B3	Autobiography	My Reminiscences	February	2
				-do-	March	12
				-do-	April	5
				Question Discussion	May	2
DSE	SEM 6	DSE B3	Tutorial		March	2
					April	2
					May	3

## Teaching Plan

Department : English

Session : 2022 - 2023

Name of the Teacher : Sraboni Chakraborti

Course Type	Semester	Paper	Unit Name	Sub-unit Name	Month	No. of Classes
CC	SEM 1	CC 1	E	Victorian Novels	August	1
				-do-	August	2
				-do-	August	2
				-do-	September	2
CC	SEM 1	CC 1	E	Pre -Raphaelites	September	3
				-do-		2
				Question Discussion	December	4
CC	SEM 1	CC 1	Philology	Introduction	August	1
				Scandinavian Influence	September	2
				French Influence	September	2
				Latin Influence	September	2
				-do-	November	2
				Americanism	November	3
				Question Discussion	December	3
CC	SEM 1	CC 1	Tutorial		September	1
					November	4
					December	3
CC	SEM 3	CC 5	Novel	Old Man and the Sea	September	10
				-do-	November	10
				-do-	December	8
GE	SEM 3	GE 3	Prose (Non-Fiction)	My Life (Amar Jibon)	August	8
				-do-	September	8
				-do-	November	8
				-do-	December	6
LCC	SEM 3	LCC(L1) 1	British English & American English		August	2
					September	2
LCC	SEM 3	LCC(L1) 1	Tutorial		September	2
					November	4

					December	3
CC	SEM 5	CC 11	Prose (Non – Fiction)	My Life (Amar Jibon)	August	4
				-do-	September	8
				-do-	November	8
				Question Discussion	December	2
CC	SEM 5	CC 12	Drama	Pygmalion	August	4
				-do-	September	4
				-do-	November	8
				Question Discussion	December	2
DSE	SEM 5	DSE A1	Poetry	Gitanjali XXVII	August	4
				Question Discussion	December	1
DSE	SEM 5	DSE A1	Poetry	Gitanjali XCVII	August	4
				Question Discussion	December	1
DSE	SEM 5	DSE B1	Literary Type	Short Story	September	3
				-do-	November	3
LCC	SEM 5	LCC(L1) 2	Poetry	Gitanjali No. 50	August	2
LCC	SEM 5	LCC(L1) 2	Poetry	India My Native Land	September	2
LCC	SEM 5	LCC(L1) 2	Plain Language & Figurative Language	Use of Figures of Speech	September	2
				-do-	November	2
				-do-	December	2
CC	SEM 2	CC 3	Novel	Rajmohan's Wife	March	6
				-do-	April	6
				-do-	May	3
CC	SEM 2	CC3	Tutorial		March	2
					April	2
					May	2
CC	SEM 2		REMEDIAL		April	4
					May	2
GE	SEM 2	GE 2	Novel	Mayor of Casterbridge	March	2
				-do-	April	4
				-do-	May	2
CC	SEM 4	CC 8	Prose (Non-Fiction)	Sir Roger at Home	April	4
CC	SEM 4	CC8	Prose (Non-Fiction)	Sir Roger at Church	April	2
				-do-	May	2
CC	SEM 4	CC 9	Prose (Non-Fiction)	Dream Children	March	3

CC	SEM 4	CC 9	Prose (Non-Fiction)	The Superannuated Man	March	1
				-do-	April	3
CC	SEM 4	CC 10	Poetry	Ulysses	March	4
CC	SEM 4	CC 10	Poetry	Dover Beach	April	3
SEC	SEM 4	SEC B2	Summarising	Summary Writing	March	2
				Critical Note	April	3
SEC	SEM 4	SEC B2	Paraphrasing		May	3
CC	SEM 4		REMEDIAL		April	4
					May	2
CC	SEM 6	CC 14	Poetry	The Voice of the Mountain	May	3
DSE	SEM 6	DSE A 3	Short Story	Marooned	March	6
				Question Discussion	May	1
DSE	SEM 6	DSE A 3	Poetry	Rehabilitation	April	4
				Question Discussion	May	1
DSE	SEM 6	DSE B 3	Autobiography	My Reminiscences	February	2
				-do-	March	12
				-do-	April	5
				Question Discussion	May	2
DSE	SEM 6	DSE B 3	Tutorial		March	2
					April	4
					May	3

## Teaching Plan

Department: ENGLISH ( Day) Session: 2018 ( July – Dec)

Name of the teacher: Srimanti Chowdhuri

Course type (CC/ GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 1				JULY - DEC	
	CC1	Group A Section 1 Unit B	Elizabethan Sonnets, University Wits, and Ben Jonson	July/August  Aug- Sept Sept/October	3  3 2
		Group B Philology	Americanism	Nov/December	2
	CC2	Group A	Group A: Social and intellectual background.	July/August	2
		Group B	Homer, The Iliad (Books I and II)	Aug/September	6
		Group C	Horace, Satires, I: IV in Horace: Satires and Epistles .	Nov/December	4
	AECC		<ul style="list-style-type: none"> <li>• Correction of sentences</li> <li>• Transformation of (Simple, Complex and Compound) Sentences;</li> <li>• Degrees of Comparison;</li> <li>• Affirmative and Negative Sentences;</li> <li>Interrogative and Assertive Sentences;</li> <li>Exclamatory and Assertive Sentences)</li> <li>• Identifying True/False Statements from Given Passage</li> </ul>	July – August  August – Sept.  Sept/October  Nov/December	3  3  2  3



<b>II YEAR</b>		<b>Paper III</b> Drama	Macbeth		
		<b>Paper IV</b> Novels , Essays , Short Stories	<i>Essays :</i> Charles Lamb : The Superannuated Man George Orwell Shooting an Elephant	Jan – March  April – May	12  6
<b>III YEAR</b>		<b>Paper V</b>	GROUP B: WB Yeats: An Acre of Grass, Dylan Thomas: In my craft or sullen art, TS Eliot: The Love Song of J. Alfred Prufrock, Wilfred Owen: Spring Offensive, Ted Hughes: Hawk-roosting	Jan / Feb / March	10
		<b>Paper VI</b>	Group D Summary and Critical Note.	“	4
		<b>Paper VII</b> Drama	Pygmalion G.B. Shaw .	April /May	10
		Literary type	Epic	July	4
		<b>Paper VIII</b>  Indian Writing in English	Munshi Prem Chand: The Shroud Ruskin Bond: The Eyes are not Here Manik Bandyopadhyay: Primeval	August - Sept	8

## Teaching Plan

**Department: English (Day) Session: 2019 ( JAN -JUNE)**

**Name of the teacher: Srimanti Chowdhuri**

Course type (CC/ GE/SEC/AECC/DSE )	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 2	CC 3	Poetry	A.K. Ramanujan ARiver	Jan/Feb	2
			JayantaMahapatra, 'Dawn at Puri'		2
	CC 4	Poetry	Wife of Bath's Prologue	March/Apri l	6
		Drama	Macbeth	April /May	8
	GE 2	Drama	As You Like It.	Jan-Feb – March	6
III Year		Drama	Macbeth	Jan /Feb / March	12
		Poetry	Paradise Lost	April / May	10
		Drama	Arms and the Man	July – sept	10

## Teaching Plan

Department: English ( Day) Session: 2019 ( July – Dec )

Name of the teacher: Srimanti Chowdhuri

Course type (CC/ GE/SEC/AECC/DSE )	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 1	CC1	Group A Section 1 Unit B	Elizabethan Sonnets, University Wits, Ben Jonson	July/Aug Aug/Sept Sept/ Oct	3 3 2
			Americanism	Nov/Dec	2
		Group B Section 1			
	CC2	Group A	Social and intellectual background	July/Aug	2
		Group B	Homer <i>The Iliad</i> ( Books 1&2)		6
		Group C	Horace <i>Satire</i> 1: IV		4
	AEC C	Communicativ e English	Correction of sentences	July/Aug	2
			Transformatio n of Sentences	Aug/Sept	2

			<ul style="list-style-type: none"> <li>• Degrees of Comparison;</li> <li>• Affirmative and Negative Sentences;</li> <li>Interrogative and Assertive Sentences;</li> <li>Exclamatory and Assertive Sentences.</li> <li>• Identifying True/False Statements from Given Passage</li> </ul>	July – August August – Sept. Sept/October Nov/December	3 2 2 2
SEM 3	CC5	Poetry          Stories	<ul style="list-style-type: none"> <li>• Robert Frost, 'After Apple Picking'</li> <li>• Walt Whitman, 'O Captain, My Captain'</li> <li>• Sylvia Plath, 'Daddy'</li> <li>• Langston Hughes, 'Harlem to be Answered'</li> <li>• Edgar Allan Poe, 'To Helen'</li> </ul> The Purloined Letter	July Aug Sept Nov Dec Aug -Sept	3 2 2 2 2 3

	CC6	Popular literature	Agatha Christie, The Murder of Roger Ackroyd	Aug – Sept	6
	CC7	Poetry	John Milton, Paradise Lost, Book I	July – Sept	8
	SEC A2	–			
	GE 3	Prose	Rassundari Devi: Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop.	July- Sept	6

## Teaching Plan

**Department: English (Day) Session: 2020 (Jan to June)**

**Name of the teacher: Srimanti Chowdhuri**

Course type (CC/ GE/SEC/AECC/DSE )	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 2	CC 3	Indian Writing in English	POETRY : A.K. Ramanujan, 'River'	Jan – Feb	2
			JayantaMahapatra, 'Dawn at Puri'		2
	CC 4	British Poetry and Drama ( 14 <sup>th</sup> to 17 <sup>th</sup> century)	POETRY Wife of Bath's Prologue	March – April	6
		Drama	Macbeth	April – May	8
	GE 2	Drama	As You Like It	Jan - March	6
SEM 4	CC8	18 <sup>th</sup> century British Literature	Poetry Samuel Johnson, 'London' Thomas Gray, Elegy Written in a Country Churchyard	Jan – March	6 6
	CC9	British Romantic Literature	Poetry William Blake, 'The Lamb' and 'The Tyger' William Wordsworth, 'Tintern Abbey'	March – April	6
	CC10	19 <sup>th</sup> century British Literature	Poetry Robert Browning, 'My Last Duchess' Christina Rossetti, 'The Goblin Market' Matthew Arnold, 'Dover Beach'	April – May	6

## Teaching Plan

Department: English ( Day) Session: 2020 ( July – Dec )

Name of the teacher: Srimanti Chowdhuri

Course type (CC/GE/SEC/AECC/D SE)	Pape r	Unit name	Sub-unit name	Month	No. of classes
SEM 1	CC1	Group A Section 1 Unit B	Elizabethan Sonnets, University Wits, Ben Jonson	July/Aug Aug/Sept Sept/ Oct	3 3 2
		Group B Section 1	Americanism	Nov/Dec	2
		Group A	Social and intellectual background		2
		Group B	Homer <i>The Iliad</i> ( Books 1&2)	July/Aug	6
	CC2	Group C	Horace <i>Satire</i> I : IV		4
	AEC C	Communicati ve English	Correction of sentences	July/Aug	2
			Transformation of Sentences	Aug/Sept	2
			• Degrees of Comparison; • Affirmative and Negative Sentences; Interrogative and Assertive Sentences; Exclamatory and Assertive Sentences. • Identifying True/False Statements from Given Passage	July – August August – Sept.  Sept/Octobe r  Nov/Decem ber	3 2  2  2

SEM 3	CC5	Poetry	<ul style="list-style-type: none"> <li>•Robert Frost, 'After Apple Picking'</li> <li>•Walt Whitman, 'O Captain, My Captain'</li> <li>• Sylvia Plath, 'Daddy'</li> <li>• Langston Hughes, 'Harlem to be Answered'</li> <li>• Edgar Allan Poe, 'To Helen'</li> </ul>	July Aug Sept	3 2 2
		Stories	The Purloined Letter	Nov Dec	2 2
				Aug -Sept	3
	CC6	Popular literature	Agatha Christie, The Murder of Roger Ackroyd		8
	CC7	Poetry	John Milton, Paradise Lost, Book I	July – Sept	8
	SEC A2	–			
	GE 3	Prose	Rassundari Devi: Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop.	July- Sept	6
SEM 5	CC1 1	Women's Writings	<i>Amar Jiban</i> Rassundari Devi.	July - August	4



	CC1 2	20 <sup>th</sup> Century British Literature POETRY	<p>Social and Intellectual Background</p> <p>T.S. Eliot, 'The Love Song of J. Alfred Prufrock' and 'Preludes'</p> <p>W.B. Yeats, 'The Second Coming' and 'No Second Troy'</p> <p>Wilfred Owen, 'Spring Offensive'</p>	<p>July</p> <p>August</p> <p>September</p> <p>November</p>	<p>2</p> <p>4</p> <p>4</p> <p>2</p>
	DSE A	–			
	DSE B 1	Literary types	Comedy (Romantic Comedy, Comedy of Humours, Comedy of Manners, Sentimental Comedy)	Nov – Dec	4

## Teaching Plan

Department: English, Day Shift Session: 2021 ( JAN -JUNE)

Name of the teacher: Srimanti Chowdhuri

Course type (CC/GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 2					
	CC 4	Poetry	Wife of Bath's Prologue	March/April	6
		Drama	Macbeth	April /May	8
	GE 2	Drama	As You Like It.	Jan-Feb – March	6
Sem 4	CC8	18 <sup>th</sup> Century British Literature	POETRY Samuel Johnson, 'London' Thomas Gray, Elegy Written in a Country Churchyard	Jan - Feb	6
					6
	CC9	British Romantic Literature	William Blake, 'The Lamb' and 'The Tyger' William Wordsworth, 'Tintern Abbey'.	March / April	6
	CC10	19 <sup>th</sup> Century British Literature.	Christina Rossetti, 'The Goblin Market' Matthew Arnold, 'Dover Beach'	April/ May	6
Sem 6	CC13	Modern European Drama	Bertolt Brecht, The Good Woman of Szechuan	Jan /Feb/	8

	CC14	Post Colonial Literatures	NOVEL - Gabriel Garcia Marquez, Chronicle of a Death Foretold POETRY – Pablo Neruda , Tonight I can write the saddest lines	March/ April/	8 3
	DSEB 3	Autobiographical Writing	Nirad C Chaudhuri , Autobiography of an Unknown Indian	April / May	8

## Teaching Plan

Department: English ( Day) Session: 2021 ( July – Dec )

Name of the teacher: Srimanti Chowdhuri

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 1	CC1	Group A Section 1 Unit B	Elizabethan Sonnets, University Wits, Ben Jonson	July/Aug Aug/Sept Sept/ Oct	3 3 2
		Group B Section 1	Americanism	Nov/Dec	2
	CC2	Group A	Social and intellectual background		2
		Group B	Homer <i>The Iliad</i> ( Books 1&2)	July/Aug	6
		Group C	Horace <i>Satire I</i> : IV		4
	AEC C	Communicative English	Correction of sentences	July/Aug	2
			Transformation of Sentences	Aug/Sept	2
			• Degrees of Comparison; • Affirmative and Negative Sentences; • Interrogative and Assertive Sentences; • Exclamatory and Assertive Sentences. • Identifying True/False	July – August August – Sept. Sept/October Nov/December	3 2 2 2

			Statements from Given Passage		
<b>SEM 3</b>	CC5	Poetry         Stories	<ul style="list-style-type: none"> <li>•Robert Frost, 'After Apple Picking'</li> <li>•Walt Whitman, 'O Captain, My Captain'</li> <li>• Sylvia Plath, 'Daddy'</li> <li>• Langston Hughes, 'Harlem to be Answered'</li> <li>• Edgar Allan Poe, 'To Helen'</li> </ul> The Purloined Letter	July Aug Sept  Nov Dec  Aug -Sept	3 2 2  2 2  3
	CC6	Popular literature	Agatha Christie, The Murder of Roger Ackroyd		8
	CC7	Poetry	John Milton, Paradise Lost, Book I	July – Sept	8
	SEC A2	–			
	GE 3	Prose	Rassundari Devi: Amar Jiban, translated Enakshi Chatterjee,	July- Sept	6

			Writers' Workshop.		
<b>SEM 5</b>	CC11	Women's Writings	<i>Amar Jiban</i> Rassundari Devi.	July - August	4
	CC12	20 <sup>th</sup> Century British Literature POETRY	Social and Intellectual Background  T.S. Eliot, 'The Love Song of J. Alfred Prufrock' and 'Preludes'  W.B. Yeats, 'The Second Coming' and 'No Second Troy'  Wilfred Owen, 'Spring Offensive'	July  August  September  November	2  4  4  2
	DSE A	–			
	DSE B 1	Literary types	Comedy (Romantic Comedy, Comedy of Humours, Comedy of Manners, Sentimental Comedy)	Nov – Dec	4

## Teaching Plan

Department: English, Day Shift Session: 2022 ( JAN -JUNE)

Name of the teacher: Srimanti Chowdhuri

Course type (CC/ GE/SEC/AECC/DSE )	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 2	CC 3	Poetry	A.K. Ramanujan ARiver	Jan/Feb	2
			JayantaMahapatra, 'Dawn at Puri'		2
	CC 4	Poetry	Wife of Bath's Prologue	March/ April	6
		Drama	Macbeth	April /May	8
	GE 2	Drama	As You Like It.	Jan-Feb – March	6
Sem 4	CC8	18 <sup>th</sup> Century British Literature	POETRY Samuel Johnson, 'London'	Jan - Feb	6
			Thomas Gray, Elegy Written in a Country Churchyard		6
	CC9	British Romantic Literature	William Blake, 'The Lamb' and 'The Tyger' William Wordsworth, 'Tintern Abbey'.	March / April	6
	CC10	19 <sup>th</sup> Century British Literature.	Christina Rossetti, 'The Goblin Market' Matthew Arnold, 'Dover Beach'	April/ May	6
Sem 6	CC13	Modern European Drama	Bertolt Brecht, The Good Woman of Szechuan	Jan /Feb/	8
	CC14	Post	NOVEL - Gabriel	March/	8

		Colonial Literatures	Garcia Marquez, Chronicle of a Death Foretold POETRY – Pablo Neruda , Tonight I can write the saddest lines	April/	3
	DSEB 3	Autobiographical Writing	Nirad C Chaudhuri , Autobiography of an Unknown Indian	April / May	8



## Teaching Plan

Department: English ( Day) Session: 2022 ( July – Dec )

Name of the teacher: Srimanti Chowdhuri

Course type (CC/GE/SEC/AECC/DSE )	Paper	Unit name	Sub-unit name	Month	No. of classes
SEM 1	CC1	Group A Section 1 Unit B	Elizabethan Sonnets, University Wits, Ben Jonson	July/Aug Aug/Sept Sept/ Oct	3 3 2
		Group B Section 1	Americanism	Nov/Dec	2
		Group A	Social and intellectual background		2
		Group B	Homer <i>The Iliad</i> ( Books 1&2)	July/Aug	6
	AEC C	Communicative English	Correction of sentences	July/Aug	2
			Transformation of Sentences	Aug/Sept	2
			• Degrees of Comparison; • Affirmative and Negative Sentences; Interrogative and Assertive Sentences; Exclamatory and Assertive Sentences. • Identifying True/False Statements from Given Passage	July – August August – Sept. Sept/October Nov/December	3 2 2 2

SEM 3	CC5	Poetry	<ul style="list-style-type: none"> <li>•Robert Frost, 'After Apple Picking'</li> <li>•Walt Whitman, 'O Captain, My Captain'</li> <li>• Sylvia Plath, 'Daddy'</li> <li>• Langston Hughes, 'Harlem to be Answered'</li> <li>• Edgar Allan Poe, 'To Helen'</li> </ul>	July Aug Sept  Nov Dec  Aug -Sept	3 2 2  2 2  3
		Stories	The Purloined Letter		
	CC6	Popular literature	Agatha Christie, The Murder of Roger Ackroyd		8
	CC7	Poetry	John Milton, Paradise Lost, Book I	July – Sept	8
	SEC A2	–			
	GE 3	Prose	Rassundari Devi: Amar Jiban, translated Enakshi Chatterjee, Writers' Workshop.	July- Sept	6
SEM 5	CC11	Women's Writings	<i>Amar Jiban</i> Rassundari Devi.	July - August	4

	CC12	20 <sup>th</sup> Century British Literature POETRY	Social and Intellectual Background  T.S. Eliot, 'The Love Song of J. Alfred Prufrock' and 'Preludes'  W.B. Yeats, 'The Second Coming' and 'No Second Troy'  Wilfred Owen, 'Spring Offensive'	July  August  September  November	2  4  4  2
	DSE A	–			
	DSE B 1	Literary types	Comedy (Romantic Comedy, Comedy of Humours, Comedy of Manners, Sentimental Comedy)	Nov – Dec	4

## Teaching Plan

**Department: English ( Day Shift) Session: 2023 ( JAN -JUNE)**

**Name of the teacher: Srimanti Chowdhuri**

Course type (CC/GE/SEC/AECC/DSE)	Pape r	Unit name	Sub-unit name	Month	No. of classe s
SEM 2				Jan/Feb	2
	CC 4	Poetry	Wife of Bath's Prologue	March/Apri l	6
		Drama	Macbeth	April /May	8
				Jan-Feb – March	6
Sem 4	CC8	18 <sup>th</sup> Century British Literature	POETRY Samuel Johnson, 'London' Thomas Gray, Elegy Written in a Country Churchyard	Jan - Feb	6
	CC9	British Romantic Literature	William Blake, 'The Lamb' and 'The Tyger' William Wordsworth, 'Tintern Abbey'.	March / April	6
	CC10	19 <sup>th</sup> Century British Literature.	Christina Rossetti, 'The Goblin Market' Matthew Arnold, 'Dover Beach'	April/ May	6
Sem 6	CC13	Modern European Drama	Bertolt Brecht, The Good Woman of Szechuan	Jan /Feb/	8

	CC14	Post Colonial Literatures	NOVEL - Gabriel Garcia Marquez, Chronicle of a Death Foretold POETRY – Pablo Neruda , Tonight I can write the saddest lines	March/ April/	8 3
	DSE B 3	Autobiographical Writing	Nirad C Chaudhuri , Autobiography of an Unknown Indian	April / May	8

## Teaching Plan

Department: English

Session: 2018-2019

Name of the teacher : Barnali Pain

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
ENGA CC1	Group A: History Of Literature And Philology	Section 1, Unit C	Restoration Comedy of Manners, <u>18<sup>th</sup> Century Novels</u>	Sep-Nov	08
		Section 2, Unit D	Pre Romantic Poetry, Romantic Non – fiction Prose	Dec-Jan	08
ENGA CC2	European Classical Literature	Group C	Ovid, Selections from <i>Metamorphoses</i> , 'Bacchus' ( Book III )	Sep-Jan	10
AECC1	Communicative English		Correction Of Sentences, Transformation Of Sentences, Identifying True/False Statements From Given Passages	Nov - Jan	10
Generic 1	English	Poetry	William Shakespeare :Sonnet 18 William Wordsworth: <i>Strange Fits of Passion</i> P.B.Shelley: <i>To a Skylark</i>	Nov-Dec	10

ENGA PART III, PAPER 5	Poetry	Group A	Lord Tennyson: <i>Ulysses</i> , Matthew Arnold: <i>Dover Beach</i>	Sep-Dec	16
		Group B	W.B. Yeats: <i>An Acre of Grass</i> Ted Hughes: <i>Hawk Roosting</i>		
			Rhetoric and Prosody		10
				Sep-Dec	
ENGA PART III, PAPER 6	Miscellaneous Writing Skills	Group B	Dialogue, Book Reviews		16
		Group C	Essay		
		Group D	Summary and Critical Note on an Unseen Passage		
ENGA PART III, PAPER 7	Drama	Modern Drama	John Osborne: <i>Look Back in Anger</i>	Sep-Jan	16
ENGG PART III	UNSEEN		Dialogue Writing, Substance Writing	Sep- Jan	16
ENGA PART II Paper III	Drama	Group A	Shakespeare: <i>A Midsummer's Night's Dream</i>	Sep- Jan	16

ENGA PART II Paper IV	Novel	Group A	Jane Austen: <i>Pride and Prejudice</i>	Sep-Jan	12
ENGG	Drama		Shakespeare : <i>Julius Caesar</i>	Sep-Jan	16

**Department: English**

**Session: 2019-2020**

**Name of the teacher: Barnali Pain**

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
ENGA CC1	Group A: History Of Literature And Philology	Section 1, Unit C	Restoration Comedy of Manners 18 <sup>th</sup> Century Novels	Sep-Nov	08
		Section 2, Unit D	Pre Romantic Poetry, Romantic Non – fiction Prose	Dec-Jan	08
ENGA CC2	European Classical Literature	Group C	Ovid, Selections from <i>Metamorphoses</i> , 'Bacchus' ( Book III )	Sep-Jan	10
AECC1	English		Correction Of Sentences, Transformation Of Sentences, Identifying True/False Statements From Given Passages	Nov-Jan	10



ENG A CC3	Indian Writing in English	Novel	Bankim Chandra Chattopadhyaya: <i>Rajmohan's Wife</i>	March-May	10
ENG A CC4	British Poetry And Drama	Sonnet	Edmund Spenser: <i>One Day I Wrote her Name</i> Shakespeare: Sonnets 18 and 130	May	06
		Drama	Shakespeare : <i>Twelfth Night</i>	March - May	14
ENG A CC5	American Literature	Novel	Hemingway: <i>The Old Man and the Sea</i>	Sep- Nov	10
ENG A CC6	Popular Literature	Nonsense Verse	Sukumar Ray: <i>Abol Tabol</i>	Sep-Nov	10
ENG A CC7	British Poetry And Drama	Verse Satire	Alexander Pope: <i>The Rape of the Lock</i> Canto I-III	Nov-Jan	12
SEC A2	Business Communication		What is Business Communication, Writing reports, letters, curriculum vitae; Writing meeting minutes, E-correspondence	Oct-Dec	08
GE3	Women's Writing And Women's Empowerment	Prose	Rokeya Sakhawat Hossain : <i>Sultana's Dream</i>	Oct-Dec	06
GE2	Essay, Drama, Novel	Essay	Charles Lamb : <i>Dream Children</i> George Orwell : <i>Shooting an Elephant</i>	March-April	10

Department: English

Session: 2020-2021

Name of the teacher: Barnali Pain

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
ENGA CC1	Group A: History Of Literature And Philology	Section 1, Unit C	Restoration Comedy Of Manners 18 <sup>th</sup> Century Novels	Sep-Nov	08
		SECTION 2, UNIT D	Pre Romantic Poetry, Romantic Non – Fiction Prose	DEC- JAN	08
ENGA CC2	European Classical Literature	Group C	Ovid, Selections From <i>Metamorphoses</i> , 'Bacchus' ( Book III )	Sep-Jan	10
AECC1	English		Correction Of Sentences, Transformation Of Sentences, Identifying True/False Statements From Given Passages	Nov-Jan	10
ENGA CC6	Popular Literature	Nonsense Verse	Sukumar Ray: <i>Abol Tabol</i>	Sep-Nov	10
ENGA CC7	British Poetry And Drama	Verse Satire	Alexander Pope: <i>The Rape Of The Lock</i> Canto I-III	Nov-Jan	12
GE3	Women's Writing And Women's Empowerment	Prose	Rokeya Sakhawat Hossain : <i>Sultana's Dream</i>	Oct-Dec	06
ENGA CC3	Indian Writing In English	Novel	Bankim Chandra Chattopadhyaya: <i>Rajmohan's Wife</i>	March- May	10
ENGA CC4	British Poetry	Sonnet	Edmund Spenser: <i>One Day I Wrote Her Name</i>	March- May	08

		Drama	Shakespeare: Sonnets 18 And 130  <i>Twelfth Night</i>		14
ENGA CC9	British Romantic Literature	Poetry    Novel	Coleridge: <i>Kubla Khan</i> Shelley: <i>To A Skylark</i> , <i>Ode To The West Wind</i> Keats: <i>To Autumn</i> , <i>Ode To A Nightingale</i>  Mary Shelley: <i>Frankenstein</i>	March-May	20
ENGA CC10	19th Century British Literature	Novel	Jane Austen: <i>Pride And Prejudice</i>	May-July	10

Department: English

Session: 2021-2022

Name of the teacher: Barnali Pain

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
ENGA CC1	Group A: History Of Literature And Philology	Section 1, Unit C	Restoration Comedy Of Manners 18 <sup>th</sup> Century Novels	Sep-Nov	08
		SECTION 2, UNIT D	Pre Romantic Poetry, Romantic Non – Fiction Prose	Dec-Jan	08
ENGA CC2	European Classical Literature	Group C	Ovid, Selections From <i>Metamorphoses</i> , 'Bacchus' ( Book Iii )	Sep-Jan	10
AECC1	English		Correction Of Sentences, Transformation Of Sentences, Identifying True/False Statements From Given Passages	Nov-Jan	10
ENGA CC6	Popular Literature	Nonsense Verse	Sukumar Ray: <i>Abol Tabol</i>	Sep-Nov	10

ENGA CC7	British Poetry And Drama	Verse Satire	Alexander Pope: <i>The Rape Of The Lock</i> Canto I-III	Nov-Jan	12
GE2	Essay, Drama, Novel	Essay	Charles Lamb : <i>Dream Children</i> George Orwell : <i>Shooting An Elephant</i>	March-April	10
ENGA CC3	Indian Writing In English	Novel	Bankim Chandra Chattopadhyaya: <i>Rajmohan's Wife</i>	March-April	10
ENGA CC4	British Poetry	Sonnet	Edmund Spenser: <i>One Day I Wrote Her Name</i> Shakespeare: Sonnets 18 And 130	March-May	08
		Drama	Shakespeare: <i>Twelfth Night</i>		14
ENGA CC 9	British Romantic Literature	Poetry	Coleridge: <i>Kubla Khan</i> Shelley: <i>To A Skylark, Ode To The West Wind</i> Keats: <i>To Autumn, Ode To A Nightingale</i>	March-May	20
		Novel	Mary Shelley: <i>Frankenstein</i>		
ENGA CC10	19th Century British Literature	Novel	Jane Austen: <i>Pride And Prejudice</i>	May-July	10
ENGA CC11	Women's Writings	Fiction	Mahasweta Devi: <i>Draupadi</i>	Sep	06
DSEA1	Modern Indian Writing In English Translation	Poetry	R.Tagore : <i>Gitanjali</i> Xxvii, Xcvii G.M. Muktibodh: <i>Void</i> Amrita Pritam: ' <i>I Say Unto Waris Shah</i> '	Nov-Jan	08
		Drama	Vijay Tendulkar: <i>Silence!The Court Is In Session</i>		10
DSEB1	Literary Types, Rhetoric And Prosody	Group B And Group C	Rhetoric, Prosody	Sep-Jan	12
DSEB3	Autobiography		Rabindranath Tagore: <i>My Reminiscences</i> , Chapters 1- 15	April	14
ENGA CC13	Modern European Drama		Samuel Beckett: <i>Waiting For Godot</i>	February -March	16

ENG CC14	Post Colonial Literatures	Poetry	Derek Walcott : <i>Fry Cry From Africa</i>  David Malouf: <i>Revolving Days</i>  Mamang Dai: <i>The Voice Of The Mountain</i>	March	14
----------	---------------------------	--------	---	-------	----

Department: English

Session: 2022-2023

Name of the teacher: Barnali Pain

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
ENG CC1	Group A: History Of Literature And Philology	Section I, Unit C	Restoration Comedy Of Manners 18 <sup>th</sup> Century Novels	Sep-Nov	10
ENG CC2	European Classical Literature	Group C	Ovid, Selections From <i>Metamorphoses</i> , 'Bacchus' ( Book Iii )	Sep-Jan	10
AECC1	English		Correction Of Sentences, Transformation Of Sentences, Identifying True/False Statements From Given Passages	Nov-Jan	10
ENG CC6	Popular Literature	Nonsense Verse	Sukumar Ray: <i>Abol Tabol</i>	Sep-Nov	10
ENG CC7	British Poetry And Drama	Verse Satire	Alexander Pope: <i>The Rape Of The Lock</i> Canto I-iii	Nov-Jan	12
ENG CC3	Indian Writing In English	Novel	Bankim Chandra Chattopadhyay : <i>Rajmohan's Wife</i>		
ENG CC4	British Poetry	Sonnet  Drama	Edmund Spenser: <i>One Day I Wrote Her Name</i> Shakespeare: Sonnets 18 And 130  Shakespeare: <i>Twelfth Night</i>	March-May	8

ENGA CC 9	British Romantic Literature	Poetry  Novel	Coleridge: <i>Kubla Khan</i> Shelley: <i>To A Skylark, Ode To The West Wind</i> Keats: <i>To Autumn, Ode To A Nightingale</i>  Mary Shelley: <i>Frankenstein</i>	March-May	20
ENGA CC10	19th Century British Literature	Novel	Jane Austen: <i>Pride and Prejudice</i>	May-July	10
ENGA CC11	Women's Writings	Fiction	Mahasweta Devi: <i>Draupadi</i>	Sep	06
DSEA1	Modern Indian Writing In English Translation	Poetry  Drama	R.Tagore ; <i>Gitanjali</i> Xxvii, Xcvii G.M. Muktibodh: <i>Void</i> Amrita Pritam: <i>'I Say Unto Waris Shah'</i>  Vijay Tendulkar: <i>Silence! The Court Is In Session</i>	Nov-Jan	08  10
DSEB1	Literary Types, Rhetoric And Prosody	Group B And Group C	Rhetoric, Prosody	Sep-Jan	12
DSEB3	Autobiography		Rabindranath Tagore: <i>My Reminiscences</i> , Chapters 1- 15	April - May	14
ENGA CC13	Modern European Drama		Samuel Beckett: <i>Waiting For Godot</i>	February -March	16
ENGA CC14	Postcolonial Literatures	Poetry	Derek Walcott : <i>Fry Cry From Africa</i>  David Malouf: <i>Revolving Days</i>  Mamang Dai: <i>The Voice Of The Mountain</i>	March - April	14

### Teaching Plan

Department: English

Session: 2018-2019

Name of the teacher: Madhuchhanda Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	GROUP A: HISTORY OF LITERATURE AND PHILOLOGY	SECTION 1, UNIT E	VICTORIAN NOVEL AND THE PRE-RAPHAELITES	SEP-NOV	6
		SECTION 2, UNIT F	MODERN NOVEL, MODERN POETRY, MODERN DRAMA	DEC-JAN	7
AECC1	ENGLISH		CORRECTION OF SENTENCES, TRANSFORMATION OF SENTENCES, IDENTIFYING TRUE/FALSE STATEMENTS FROM GIVEN PASSAGES	NOV-JAN	10
GE1	ENGLISH	POETRY	SHAKESPEARE'S SONNET 18, WORDSWORTH, 'STRANGE FITS OF PASSION', SHELLEY, 'TO A SKYLARK', KEATS, 'TO AUTUMN'	OCT-NOV	5
		SHORT STORY	JAMES JOYCE, 'ARABY', KATHERINE MANSFIELD, 'THE FLY', JOSEPH CONRAD, 'THE LAGOON'	NOV-DEC	6
PART III, PAPER 6	NOVEL, ESSAY & WRITING	GROUP A	Thomas Hardy – The Mayor of Casterbridge	SEP-DEC	8

PART II, PAPER 3	NOVEL, ESSAYS AND SHORT STORIES	GROUP D	Stories - James Joyce, Araby, Katherine Mansfield, The Fly	SEP-JAN	7
------------------	--	---------	--	---------	---

Department: English

Session: 2019-2020

Name of the teacher: Madhuchhanda Roy

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	GROUP A: HISTORY OF LITERATURE AND PHILOLOGY	SECTION 1, UNIT E	VICTORIAN NOVEL AND THE PRE-RAPHAELITES	SEP- NOV	6
		SECTION 2, UNIT F	MODERN NOVEL, MODERN POETRY, MODERN DRAMA	DEC- JAN	7
AECC1	ENGLISH		CORRECTION OF SENTENCES, TRANSFORMATIO N OF SENTENCES, IDENTIFYING TRUE/FALSE STATEMENTS FROM GIVEN PASSAGES	NOV- JAN	10
GE1	ENGLISH	POETRY	SHAKESPEARE'S SONNET 18, WORDSWORTH, 'STRANGE FITS OF PASSION', SHELLEY, 'TO A SKYLARK', KEATS, 'TO AUTUMN'	OCT- NOV	5
		SHORT STORY	JAMES JOYCE, 'ARABY', KATHERINE MANSFIELD, 'THE FLY', JOSEPH CONRAD, 'THE LAGOON'	NOV- DEC	6



CC6	POPULAR LITERATURE		LEWIS CARROLL, 'THROUGH THE LOOKING GLASS'	SEP-NOV	8
CC7	BRITISH POETRY AND DRAMA	DRAMA	Aphra Behn, The Rover	NOV-JAN	9
SEC A2	BUSINESS COMMUNICATION		What is business communication, Writing reports, letters, curriculum vitae; Writing meeting minutes, E-correspondence	OCT-DEC	8
GE3	WOMEN'S WRITING AND WOMEN'S EMPOWERMENT	POETRY	Elizabeth Barret Browning: 'How Do I Love Thee', Christina Rossetti: 'Uphill', Emily Dickinson: 'I cannot live with you', Sarojini Naidu: 'Palanquin Bearers'	OCT-DEC	6
GE2	ESSAY, DRAMA AND NOVEL	NOVEL	Thomas Hardy: The Mayor of Casterbridge	MARCH-APRIL	8

Department: English

Session: 2020-2021

Name of the teacher: Madhuchhanda Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	GROUP A: HISTORY OF LITERATURE AND PHILOLOGY	SECTION 1, UNIT E	VICTORIAN NOVEL AND THE PRE-RAPHAELITES	SEP-NOV	6
		SECTION 2, UNIT F	MODERN NOVEL, MODERN POETRY, MODERN DRAMA	DEC-JAN	7

AECC1	ENGLISH		CORRECTION OF SENTENCES, TRANSFORMATION OF SENTENCES, IDENTIFYING TRUE/FALSE STATEMENTS FROM GIVEN PASSAGES	NOV-JAN	10
CC6	POPULAR LITERATURE		LEWIS CARROLL, 'THROUGH THE LOOKING GLASS'	SEP-NOV	8
CC7	BRITISH POETRY AND DRAMA	DRAMA	Aphra Behn, The Rover	NOV-JAN	9
SEC A2	BUSINESS COMMUNICATION		What is business communication, Writing reports, letters, curriculum vitae; Writing meeting minutes, E-correspondence	OCT-DEC	8
GE3	WOMEN'S WRITING AND WOMEN'S EMPOWERMENT	POETRY	Elizabeth Barret Browning: 'How Do I Love Thee', Christina Rossetti: 'Uphill', Emily Dickinson: 'I cannot live with you', Sarojini Naidu: 'Palanquin Bearers'	OCT-DEC	6
CC3	INDIAN WRITING IN ENGLISH	POETRY	A.K. Ramanujan, 'River', Jayanta Mahapatra, 'Dawn at Puri'	MARCH-APRIL	4
GE2	ESSAY, DRAMA AND NOVEL	NOVEL	Thomas Hardy: The Mayor of Casterbridge	MARCH-APRIL	8
CC8	18TH CENTURY BRITISH LITERATURE	DRAMA	William Congreve, The Way of the World	MARCH-MAY	10
CC10	19TH CENTURY BRITISH LITERATURE	NOVEL	Thomas Hardy, The Mayor of Casterbridge	MAY-JULY	10
SEC B2	ACADEMIC WRITING AND COMPOSITION		Introduction to the writing process, Introduction to academic writing,	APRIL-JULY	12

			Summarising and paraphrasing, Citing Sources, Writing Essay, Writing Critical Appreciation		
GE4	ACADEMIC WRITING		Introduction to the writing process, Introduction to academic writing, Summarising and paraphrasing, Writing Essay, Citing Sources	APRIL-JULY	12

Department: English

Session: 2021-2022

Name of the teacher: Madhuchhanda Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	GROUP A: HISTORY OF LITERATURE AND PHILOLOGY	SECTION 1, UNIT E	VICTORIAN NOVEL AND THE PRE-RAPHAELITES	SEP-NOV	6
		SECTION 2, UNIT F	MODERN NOVEL, MODERN POETRY, MODERN DRAMA	DEC-JAN	7
		Group B: Philology	Consonant Shift, Short Notes (Hybridism, Monosyllabism, Free & Fixed Compounds, -ing formation, Johnsonese	JAN-FEB	7
AECC1	ENGLISH		CORRECTION OF SENTENCES, TRANSFORMATION OF SENTENCES, IDENTIFYING TRUE/FALSE STATEMENTS FROM GIVEN PASSAGES	NOV-JAN	10
CC6	POPULAR LITERATURE		LEWIS CARROLL, 'THROUGH THE LOOKING GLASS'	SEP-NOV	8

CC7	BRITISH POETRY AND DRAMA	DRAMA	Aphra Behn, The Rover	NOV-JAN	9
SEC A2	BUSINESS COMMUNICATION		What is business communication, Writing reports, letters, curriculum vitae; Writing meeting minutes, E-correspondence	OCT-DEC	8
CC3	INDIAN WRITING IN ENGLISH	POETRY	A.K. Ramanujan, 'River', Jayanta Mahapatra, 'Dawn at Puri'	MARCH-APRIL	4
CC8	18TH CENTURY BRITISH LITERATURE	DRAMA	William Congreve, The Way of the World	MARCH-MAY	10
CC10	19TH CENTURY BRITISH LITERATURE	NOVEL	Thomas Hardy, The Mayor of Casterbridge	MAY-JULY	10
SEC B2	ACADEMIC WRITING AND COMPOSITION		Introduction to the writing process, Introduction to academic writing, Summarising and paraphrasing, Citing Sources, Writing Essay, Writing Critical Appreciation	APRIL-JULY	12
GE4	ACADEMIC WRITING		Introduction to the writing process, Introduction to academic writing, Summarising and paraphrasing, Writing Essay, Citing Sources	APRIL-JULY	12
CC11	WOMEN'S WRITINGS	FICTION	Katherine Mansfield, 'Bliss'	SEP	4
CC12	EARLY 20TH CENTURY BRITISH LITERATURE	FICTION	D.H. Lawrence, Sons and Lovers	OCT-NOV	10
DSEA1	MODERN INDIAN WRITING IN	STORIES	Munshi Prem Chand, 'The Shroud'	NOV-JAN	9

	ENGLISH TRANSLATION		Ismat Chughtai, 'The Quilt' Fakir Mohan Senapati, 'Rebati'		
DSEB1	LITERARY TYPES, RHETORIC AND PROSODY	Group – A: Literary Types	SHORT STORY	JAN	6
DSEB3	AUTOBIOGRAPHY		Mahatma Gandhi, Autobiography or the Story of My Experiments with Truth, Part I, Chapters 1 to 8	MARCH	8

Department: English

Session: 2022-2023

Name of the teacher: Madhuchhanda Roy

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	GROUP A: HISTORY OF LITERATURE AND PHILOLOGY	SECTION 1, UNIT E	VICTORIAN NOVEL AND THE PRE-RAPHAELITES	SEP- NOV	6
		SECTION 2, UNIT F	MODERN NOVEL, MODERN POETRY, MODERN DRAMA	DEC- JAN	7
		Group B: Philology	Consonant Shift, Short Notes (Hybridism, Monosyllabism, Free & Fixed Compounds, -ing formation, Johnsonese	JAN- FEB	7
AECC1	ENGLISH		CORRECTION OF SENTENCES, TRANSFORMATION OF SENTENCES, IDENTIFYING TRUE/FALSE STATEMENTS FROM GIVEN PASSAGES	NOV- JAN	10

CC6	POPULAR LITERATURE		LEWIS CARROLL, 'THROUGH THE LOOKING GLASS'	SEP-NOV	8
CC7	BRITISH POETRY AND DRAMA	DRAMA	Aphra Behn, The Rover	NOV-JAN	9
SEC A2	BUSINESS COMMUNICATION		What is business communication, Writing reports, letters, curriculum vitae; Writing meeting minutes, E-correspondence	OCT-DEC	8
CC3	INDIAN WRITING IN ENGLISH	POETRY	A.K. Ramanujan, 'River', Jayanta Mahapatra, 'Dawn at Puri'	MARCH-APRIL	4
CC8	18TH CENTURY BRITISH LITERATURE	DRAMA	William Congreve, The Way of the World	MARCH-MAY	10
CC10	19TH CENTURY BRITISH LITERATURE	NOVEL	Thomas Hardy, The Mayor of Casterbridge	MAY-JULY	10
SEC B2	ACADEMIC WRITING AND COMPOSITION		Introduction to the writing process, Introduction to academic writing, Summarising and paraphrasing, Citing Sources, Writing Essay, Writing Critical Appreciation	APRIL-JULY	12
GE4	ACADEMIC WRITING		Introduction to the writing process, Introduction to academic writing, Summarising and paraphrasing, Writing Essay, Citing Sources	APRIL-JULY	12
CC11	WOMEN'S WRITINGS	FICTION	Katherine Mansfield, 'Bliss'	SEP	4
CC12	EARLY 20TH CENTURY BRITISH LITERATURE	FICTION	D.H. Lawrence, Sons and Lovers	OCT-NOV	10

DSEA1	MODERN INDIAN WRITING IN ENGLISH TRANSLATIO N	STORIES	Munshi Prem Chand, 'The Shroud' Ismat Chughtai, 'The Quilt' Fakir Mohan Senapati, 'Rebati'	NOV- JAN	9
DSEB1	LITERARY TYPES, RHETORIC AND PROSODY	Group – A: Literary Types	SHORT STORY	JAN	6
DSEB3	AUTOBIOGRA PHY		Mahatma Gandhi, Autobiography or the Story of My Experiments with Truth, Part I, Chapters 1 to 8	MARCH	8
CC14	POSTCOLONI AL LITERATURES	NOVEL	Chinua Achebe, Things Fall Apart	APRIL- MAY	8

# Teaching Plan

**Department: Electronics**

**Session: 2022-2023**

**Name of the teacher: Alakananda Das**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	ELTG-CC-1-1-TH	NETWORK ANALYSIS AND ANALOG ELECTRONICS	JUNCTION DIODES AND ITS APPLICATIONS, BJT, TRANSISTOR BIASING, JFET, MOSFET	JULY-DEC	32
GE	ELTG-CC-1-1-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-2-2-TH	LINEAR AND DIGITAL INTEGRATED CIRCUITS	OPAMP, NUMBER SYSTEMS, BOOLEAN ALGEBRA AND LOGIC GATES, COMBINATIONAL CIRCUITS	JAN-JUNE	32
GE	ELTG-CC-2-2-P	PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32
GE	ELTG-CC-3-3-TH	COMMUNICATION ELECTRONICS	ELECTRONIC COMMUNICATION, AM, ANALOG PULSE MODULATION, CELLULAR COMMUNICATION, SATELLITE COMMUNICATION	JULY-DEC	32
GE	ELTG-CC-3-3-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-4-4-TH	MICROPROCESSOR AND MICROCONTROLLER	MICROPROCESSOR 8085, ARCHITECTURE, INSTRUCTION AND PROGRAMMING, INTERRUPTS, INTERFACING	JAN-JUNE	32
GE	ELTG-CC-4-4-P	8085 PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32



# Teaching Plan

**Department: Electronics**

**Session: 2021-2022**

**Name of the teacher: Alakananda Das**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	ELTG-CC-1-1-TH	NETWORK ANALYSIS AND ANALOG ELECTRONICS	JUNCTION DIODES AND ITS APPLICATIONS, BJT, TRANSISTOR BIASING, JFET, MOSFET	JULY-DEC	32
GE	ELTG-CC-1-1-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-2-2-TH	LINEAR AND DIGITAL INTEGRATED CIRCUITS	OPAMP, NUMBER SYSTEMS, BOOLEAN ALGEBRA AND LOGIC GATES, COMBINATIONAL CIRCUITS	JAN-JUNE	32
GE	ELTG-CC-2-2-P	PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32
GE	ELTG-CC-3-3-TH	COMMUNICATION ELECTRONICS	ELECTRONIC COMMUNICATION, AM, ANALOG PULSE MODULATION, CELLULAR COMMUNICATION, SATELLITE COMMUNICATION	JULY-DEC	32
GE	ELTG-CC-3-3-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-4-4-TH	MICROPROCESSOR AND MICROCONTROLLER	MICROPROCESSOR 8085, ARCHITECTURE, INSTRUCTION AND PROGRAMMING, INTERRUPTS, INTERFACING	JAN-JUNE	32
GE	ELTG-CC-4-4-P	8085 PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32

# Teaching Plan

**Department: Electronics**

**Session: 2020-2021**

**Name of the teacher: Alakananda Das**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	ELTG-CC-1-1-TH	NETWORK ANALYSIS AND ANALOG ELECTRONICS	JUNCTION DIODES AND ITS APPLICATIONS, BJT, TRANSISTOR BIASING, JFET, MOSFET	JULY-DEC	8
GE	ELTG-CC-1-1-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	8
GE	ELTG-CC-2-2-TH	LINEAR AND DIGITAL INTEGRATED CIRCUITS	OPAMP, NUMBER SYSTEMS, BOOLEAN ALGEBRA AND LOGIC GATES, COMBINATIONAL CIRCUITS	JAN-JUNE	8
GE	ELTG-CC-2-2-P	PRACTICAL	15 EXPERIMENTS	JAN-JUNE	8
GE	ELTG-CC-3-3-TH	COMMUNICATION ELECTRONICS	ELECTRONIC COMMUNICATION, AM, ANALOG PULSE MODULATION, CELLULAR COMMUNICATION, SATELLITE COMMUNICATION	JULY-DEC	8
GE	ELTG-CC-3-3-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	10
GE	ELTG-CC-4-4-TH	MICROPROCESSOR AND MICROCONTROLLER	MICROPROCESSOR 8085, ARCHITECTURE, INSTRUCTION AND PROGRAMMING, INTERRUPTS, INTERFACING	JAN-JUNE	10
GE	ELTG-CC-4-4-P	8085 PRACTICAL	15 EXPERIMENTS	JAN-JUNE	10

# Teaching Plan

**Department: Electronics**

**Session: 2019-2020**

**Name of the teacher: Alakananda Das**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	ELTG-CC-1-1-TH	NETWORK ANALYSIS AND ANALOG ELECTRONICS	JUNCTION DIODES AND ITS APPLICATIONS, BJT, TRANSISTOR BIASING, JFET, MOSFET	JULY-DEC	32
GE	ELTG-CC-1-1-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-2-2-TH	LINEAR AND DIGITAL INTEGRATED CIRCUITS	OPAMP, NUMBER SYSTEMS, BOOLEAN ALGEBRA AND LOGIC GATES, COMBINATIONAL CIRCUITS	JAN-JUNE	32
GE	ELTG-CC-2-2-P	PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32
GE	ELTG-CC-3-3-TH	COMMUNICATION ELECTRONICS	ELECTRONIC COMMUNICATION, AM, ANALOG PULSE MODULATION, CELLULAR COMMUNICATION, SATELLITE COMMUNICATION	JULY-DEC	32
GE	ELTG-CC-3-3-P	PRACTICAL	15 EXPERIMENTS	JULY-DEC	32
GE	ELTG-CC-4-4-TH	MICROPROCESSOR AND MICROCONTROLLER	MICROPROCESSOR 8085, ARCHITECTURE, INSTRUCTION AND PROGRAMMING, INTERRUPTS, INTERFACING	JAN-JUNE	32
GE	ELTG-CC-4-4-P	8085 PRACTICAL	15 EXPERIMENTS	JAN-JUNE	32

## Teaching Plan

**Department: Electronics**

**Session: 2018-2019**

**Name of the teacher: Alakananda Das**

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	ELTG-CC-1-1- TH	NETWORK ANALYSIS AND ANALOG ELECTRONI CS	JUNCTION DIODES AND ITS APPLICATIONS, BJT, TRANSISTOR BIASING, JFET, MOSFET	JULY- DEC	32
GE	ELTG-CC-1-1- P	PRACTICAL	15 EXPERIMENTS	JULY- DEC	32
GE	ELTG-CC-2-2- TH	LINEAR AND DIGITAL INTEGRATE D CIRCUITS	OPAMP, NUMBER SYSTEMS, BOOLEAN ALGEBRA AND LOGIC GATES, COMBINATIONAL CIRCUITS	JAN- JUNE	32
GE	ELTG-CC-2-2- P	PRACTICAL	15 EXPERIMENTS	JAN- JUNE	32

## Teaching Plan

**Department: ELECTRONICS**

**Session: 2018**

**Name of the teacher: SAJAL SARKAR**

Course type (CC/ GE)	Paper	Unit name	Sub-unit name	Month	No. of classes
First Year	IA(Theory)	Introduction to Electric Circuits	Kirchoff's Laws and Network Theorems, Electric Circuit Elements	Jan-June	10
		Basic Electronics I: Semiconductors and Analog Electronic Devices	Field Effect Transistor (FET)	Jan-June	10
	IB(Theory)	Basic Electronics II: Analog Electronic Circuits	Power amplifiers, Feedback in amplifiers, Oscillators	Jan-June	10
		Operational Amplifier (Op-Amp) and Op-Amp circuits	Op-amp circuits	Jan-June	10
	IIIA(Practical)	Electricity and Analog Electronics	6 Experiments	Jan-June	10
	IIIB(Practical)	Digital Electronics	6 Experiments	Jan-June	10
Second Year	IIA(Theory)	Digital Electronics	Combinational Logic Circuits, Flip flops and Sequential Circuits	Jan-June	10
		Instrumentation	Regulated Power Supply, Cathode ray oscilloscope, Meters, Signal Generators	Jan-June	10
	IIIB(Theory)	Electromagnetism and transmission lines	Transmission lines,	Jan-June	10
		Wave guides, modulation,	Wave-guides, Analog	Jan-June	12

		noise and radio wave propagation	Modulation, Radio wave propagation		
	IIIA(Practical)	Electricity and Analog Electronics	6 Experiments	Jan-June	10
	IIIB(Practical)	Digital Electronics	6 Experiments	Jan-June	10
Third Year	IVA(Theory)	8085 Assembly Language Programming	Introduction to the 8085 Microprocessor	Jan-May	10
		C programming	Basics of Programming in C	Jan-May	8
	IVB(Practical)	8085 Assembly Language Programming and C programming	12 Programs each section	Jan-May	14
Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32

## Teaching Plan

### Session: 2019

Course type (CC/ GE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Second Year	IIA(Theory)	Digital Electronics	Combinational Logic Circuits, Flip flops and Sequential Circuits	Jan-June	10
		Instrumentation	Regulated Power Supply, Cathode ray oscilloscope, Meters, Signal Generators	Jan-June	10
	IIB(Theory)	Electromagnetism and	Transmission lines,	Jan-June	10

		transmission lines			
		Wave guides, modulation, noise and radio wave propagation	Wave-guides, Analog Modulation, Radio wave propagation	Jan-June	12
	IIIA(Practical)	Electricity and Analog Electronics	6 Experiments	Jan-June	10
	IIIB(Practical)	Digital Electronics	6 Experiments	Jan-June	10
Third Year	IVA(Theory)	8085 Assembly Language Programming	Introduction to the 8085 Microprocessor	Jan-May	10
		C programming	Basics of Programming in C	Jan-May	8
	IVB(Practical)	8085 Assembly Language Programming and C programming	12 Programs each section	Jan-May	14
Sem-II	GE-II(Theory)	Linear and Digital Integrated Circuits	Operational Amplifiers, Clock and Timer, Sequential Circuits, Shift Registers, Counters (4 bits), D-A and A-D Conversion	Jan-Jun	32
	GE-II (Practical)	Linear and Digital Integrated Circuits Lab	15 Experiments	Jan-Jun	32
Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32

## Teaching Plan

## Session: 2020

Course type (CC/ GE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Third Year	IVA(Theory)	8085 Assembly Language Programmin g	Introduction to the 8085 Microprocessor	Jan-May	10
		C programming	Basics of Programming in C	Jan-May	8
	IVB(Practical)	8085 Assembly Language Programmin g and C programming	12 Programs each section	Jan-May	14
Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32
Sem-II	GE-II(Theory)	Linear and Digital Integrated Circuits	Operational Amplifiers, Clock and Timer, Sequential Circuits, Shift Registers, Counters (4 bits), D-A and A-D Conversion	Jan-Jun	32
	GE-II (Practical)	Linear and Digital Integrated Circuits Lab	15 Experiments	Jan-Jun	32
Sem-III	GE- III(Theory)	Communicati on Systems	Electronic Communication, Cellular Communication, Satellite Communication	Jul-Dec	32
	GE-III (Practical)	Communicati on SystemsLab	15 Experiments	Jul-Dec	32

## Teaching Plan



**Session: 2021**

<b>Course type (CC/ GE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32
Sem-II	GE-II(Theory)	Linear and Digital Integrated Circuits	Operational Amplifiers, Clock and Timer, Sequential Circuits, Shift Registers, Counters (4 bits), D-A and A-D Conversion	Jan-Jun	32
	GE-II (Practical)	Linear and Digital Integrated Circuits Lab	15 Experiments	Jan-Jun	32
Sem-III	GE- III(Theory)	Communicati on Systems	Electronic Communication, Cellular Communication, Satellite Communication	Jul-Dec	32
	GE-III (Practical)	Communicati on SystemsLab	15 Experiments	Jul-Dec	32
Sem-IV	GE- IV(Theory)	Microprocess or and Microcontrol ler Systems	8051 Microcontroller	Jan-Jun	32
	GE- IV(Practical)	Microprocess or and Microcontrol ler Systems Lab	15 Experiments	Jan-Jun	32

**Teaching Plan  
Session: 2022**

<b>Course type (CC/ GE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32
Sem-II	GE-II(Theory)	Linear and Digital Integrated Circuits	Operational Amplifiers, Clock and Timer, Sequential Circuits, Shift Registers, Counters (4 bits), D-A and A-D Conversion	Jan-Jun	32
	GE-II (Practical)	Linear and Digital Integrated Circuits Lab	15 Experiments	Jan-Jun	32
Sem-III	GE-III(Theory)	Communication Systems	Electronic Communication, Cellular Communication, Satellite Communication	Jul-Dec	32
	GE-III (Practical)	Communication Systems Lab	15 Experiments	Jul-Dec	32
Sem-IV	GE-IV(Theory)	Microprocessor and Microcontroller Systems	8051 Microcontroller	Jan-Jun	32
	GE-IV(Practical)	Microprocessor and Microcontroller Systems Lab	15 Experiments	Jan-Jun	32

## Teaching Plan

### Session: 2023

<b>Course type (CC/ GE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
---------------------------------	--------------	------------------	----------------------	--------------	---------------------------

Sem-I	GE-I(Theory)	Network Analysis and Analog Electronics	Circuit Analysis, Sinusoidal Oscillators, Unipolar Devices	Jul-Dec	32
	GE-I (Practical)	Network Analysis and Analog Electronics Lab	15 Experiments	Jul-Dec	32
Sem-II	GE-II(Theory)	Linear and Digital Integrated Circuits	Operational Amplifiers, Clock and Timer, Sequential Circuits, Shift Registers, Counters (4 bits), D-A and A-D Conversion	Jan-Jun	32
	GE-II (Practical)	Linear and Digital Integrated Circuits Lab	15 Experiments	Jan-Jun	32
Sem-III	GE-III(Theory)	Communication Systems	Electronic Communication, Cellular Communication, Satellite Communication	Jul-Dec	32
	GE-III (Practical)	Communication Systems Lab	15 Experiments	Jul-Dec	32
Sem-IV	GE-IV(Theory)	Microprocessor and Microcontroller Systems	8051 Microcontroller	Jan-Jun	32
	GE-IV(Practical)	Microprocessor and Microcontroller Systems Lab	15 Experiments	Jan-Jun	32



## Teaching Plan

Department : **Food and Nutrition**

Name of the teacher : **Dr. Asima Ghosh Bhanja.**

**Session 2018-2019 (Odd Semester) CBCS (Sem1), 1+1+1(2<sup>nd</sup> year, 3<sup>rd</sup> year)**

Course Type (CC/SEC/ DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
CC	-CC-1-2- Th:	HUMAN PHYSIOLOGY-I	1. Unit of Life: Structure and functions of cell with special reference to Plasma membrane (Fluid Mosaic Model), Mitochondria, Ribosome, Endoplasmic reticulum. Nucleus (nuclear membrane, nuclear chromatin and nucleolus). Nucleotide, Homeostasis, Positive and negative feed back	August	7
				September	10
			2. Circulatory and Cardiovascular system: Blood and its composition, formed elements, Blood groups, Mechanism of blood coagulation, Introduction to immune system, Erythropoiesis and anaemia, Structure and functions of heart, Cardiac cycle, cardiac output, blood pressure and its regulation.	November	10
			3. Digestive System: Structure and functions of G.I. tract, Process of digestion and absorption of food, Structure and functions of liver, gallbladder and pancreas.	December	8

			<p>4. Respiratory System: Structure of Lungs and gaseous exchange (oxygen and carbon dioxide transport)</p> <p>5. Discussion on previous year C.U question paper &amp; unit test on each chapter</p>		
<b>CC</b>	FNT-A-CC-1-2-P	HUMAN PHYSIOLOGY-I(PRACTICAL)	<p>1. Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)</p> <p>2. Determination of blood pressure by Sphygmomanometer (Auscultatory method).</p>	August	6
			<p>3. Measurement of Peak Expiratory flow rate.</p> <p>4. Determination of Bleeding Time (BT) and Clotting Time (CT).</p>	September	4
			<p>5. Detection of Blood group (Slide method). 6. Measurement of Haemoglobin level (Sahli's or Drabkin method)</p>	November	6
			Practice practical	December	4

<b>PaperIV</b>	UNIT - I MODULE – 12	FOOD COMMODITIES (A)	1. Cereals and Millets : Structure, processing, storage, use in various preparation, variety, selection and cost. Cereal products, breakfast cereals, fast food.	August	<b>4</b>
			2. Pulses and Legumes : Structures, Selection and variety. Storage, Processing and use in different preparations, Nutritional aspects and cost.	September	<b>8</b>
			4. Eggs : Production, grade, quality selection, storage and spoilage, cost nutritional aspects and use in different preparations.	November	<b>8</b>
			5. Meat, Fish and Poultry : Types, Selection, Purchase, Storage, Uses, preparations Cost, Spoilage of fish Poultry and meat.		
	Unit-1 Module-13	FOOD COMMODITIES (B)	6. Vegetables and Fruits : Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.	December	<b>8</b>
			Fats and oils : Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects. 3. Raising and Leavening agents : Types, constituents, uses in cookery and bakery, storage.		
			4. Food Adjuncts : Spices, condiments, herbs, extracts; concentrates, essences, food colours, origin, classification, description, uses, specifications, procurements and storage. 5. Convenience Foods : Role, types,	January	<b>4</b>

			<p>advantages, uses, cost and contribution to diet.</p> <p>6. Salt : Types and uses.</p>		
<b>Paper-IV</b>	Unit-II Module-14	COMMUNITY NUTRITION (PRACTICAL)	<p>Anthropometric Measurement of infant - Length, weight, circumference of chest, Mid - upper arm circumference, precautions to be taken. 2. Comparison with norms and interpretation of the nutritional assessment data and its significance Weight for age, height for age, weight for height, Z scores, body Mass Index (BMI) Waist - Hip Ratio (WHR).</p>	<p>September</p> <p>November</p>	<p>8</p> <p>6</p>



			<p>3. Growth charts - plotting of growth charts, growth monitoring and promotion. 4. Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies.</p> <p>5. Estimation of food and nutrient intake - Household food consumption data, adult consumption unit, 24 hours dietary recall, 24 hours record. Weighment method, food diaries, food frequency data, use of each of the above, information available through each individual, collection of data, estimation of intakes.</p>	December	8
<b>Paper-VI</b>	Module-22	DIET THERAPY-(B1)	<p>Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management -insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods, sweetness and sugar substitute.</p> <p>2. Diseases of the cardiovascular system: Atherosclerosis Hyperlipidemias - brief review of Lipoprotein Dietary care: Ischemic Heart Disease - nutritional management. Hypertension - etiology, prevalence, nutritional</p>	<p>August</p> <p>September</p>	<p>6</p> <p>8</p>

	Module-23	Diet Therapy (B2)	<p>management. Prevention of cardiovascular diseases and diet. Question answer discussion of C.U previous year.</p> <p>Renal Diseases: Classification, etiology, symptoms of Glomerulonephritis - dietary management. Acute and Chronic Nephritis - dietary management. Nephrotic syndrome - dietary management. Renal failure and Uraemia - dietary management. Nephrolithiasis - dietary management. Use of sodium and potassium exchange list.</p> <p>2. Allergies : Definitions, symptoms, diagnosis and dietary management - food selection. Question answer discussion of C.U previous year.</p>	November	6
				December	6
<b>Paper-VIII</b>	MODULE - 29.	DIETTHERAPY (A2) (PRACTICAL).	<p>Planning and preparation of Diets for the following diseases: • Diabetes mellitus • Peptic ulcers,</p> <p>• Viral hepatitis, • CHD</p>	November	<b>8</b>
				December	<b>6</b>

**Session 2018-2019 (Even Semester) CBCS(Sem2), 2<sup>nd</sup> year , 3<sup>rd</sup> year**

Course Type (CC/SEC/DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes

CC	-CC-2-4- Th:	HUMAN PHYSIOLOGY-II	Excretory system: Structure and function of skin,	January	4
			regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation.	February	8
				March	8
			2. Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause. Brief concept on spermatogenesis and Oogenesis process.	April	9
			Continued with previous chapter	May	10
			3. Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron, Concept on synapse and synaptic transmission. Reflexes,		
	-CC-2-4-P	HUMAN PHYSIOLOGY-II	1. Harvard Step test	January	4
			2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).	February	8
				March	4
			3. Qualitative determination of glucose acetone in urine.	April	6

			4. Blood film staining and identification of different types of blood cells.  5. Practice of Practical work & Discussion Viva	May	3
	UNIT - I MODULE – 12	FOOD COMMODITIES (A)	discussion on CU questions of previous years  discussion on Test question paper	January  February	4  2
	Unit-1 Module-13	FOOD COMMODITIES (B)	Salt : Types and uses Food Standards : ISI, Agmark, FPO, MPO, PFA..  discussion on CU questions of previous years	January  February	4  2
<b>PaperIV</b>	Unit-II Module-14	COMMUNITY NUTRITION (PRACTICAL)	Community field survey. Practical copy checking & discussion on CU questions of previous years  Continued Practical & discussion on test question answer	January  February	4  2
<b>Paper-VIII</b>	MODULE - 29.	DIET THERAPY (A2) (PRACTICAL).	• Gout • Anemias.  Practice Practical and Discussion on viva-vosa	January  February	4  2
<b>Paper-VIII</b>	Module-30	Hospital Internship Practical	Copy Checking and Project Formulation  Continued Project Formulation	January  February	3  2

**Session 2019-20 (Odd Semester) CBCS(Sem1, Sem-3 ), 1+1+1(3<sup>rd</sup> year)**

Course Type (CC/SEC/	Paper	Unit Name	Sub unit Name	Month	No. of classes
-------------------------	-------	-----------	---------------	-------	----------------

DSE)					
CC	-CC-1-2- Th:	HUMAN PHYSIOLOGY-I	<p>1. Unit of Life: Structure and functions of cell with special reference to Plasma membrane (Fluid Mosaic Model),</p> <p>Mitochondria, Ribosome, Endoplasmic reticulum. Nucleus (nuclear membrane, nuclear chromatin and nucleolus). Nucleotide, Homeostasis, Positive and negative feed back</p> <p>2. Circulatory and Cardiovascular system: Blood and its composition, formed elements, Blood groups, Mechanism of blood coagulation, Introduction to immune system, Erythropoiesis and anaemia, Structure and functions of heart, Cardiac cycle, cardiac output, blood pressure and its regulation.</p> <p>3. Digestive System: Structure and functions of G.I. tract, Process of digestion and absorption of food, Structure and functions of liver, gallbladder and pancreas.</p> <p>4. Respiratory System: Structure of Lungs and gaseous exchange (oxygen and carbon dioxide transport)</p>	<p>July</p> <p>August</p> <p>September</p> <p>November</p> <p>December</p>	<p>4</p> <p>8</p> <p>10</p> <p>10</p> <p>8</p>

			5. Discussion on previous year C.U question paper & unit test on each chapter		
<b>CC</b>	FNT-A-CC-1-2-P	HUMAN PHYSIOLOGY-I(PRACTICAL)	Introduction to Physiology Practical	July	2
			1. Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)	August	6
			2. Determination of blood pressure by Sphygmomanometer (Auscultatory method).		
			3. Measurement of Peak Expiratory flow rate.	September	4
			4. Determination of Bleeding Time (BT) and Clotting Time (CT).		
			5. Detection of Blood group (Slide method). 6. Measurement of Haemoglobin level (Sahli's or Drabkin method )	November	6
				December	4
			Practice practical		

CC	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.	July	4
				August	10
			Continued with previous chapter	September	10
			2. Minimum Nutritional Requirement and RDA: formulation of RDA and Dietary Guidelines Reference Man and Reference Woman, Adult consumption unit.		
			3. Energy in Human Nutrition: Idea of Energy and its unit, Energy Balance, Assessment of Energy Requirements—deficiency and excess, Determination of Energy in food, B.M.R. and its regulation, S.D.A.	November	8
CC	FNT-A-CC-3-6-P:	COMMUNITY NUTRITION (PRACTICAL)	4. Growth & Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development.	December	8
			5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering		
			Question answer discussion of C.U previous year.		
CC	FNT-A-CC-3-6-P:	COMMUNITY NUTRITION (PRACTICAL)	1. Anthropometric Measurement of infant - Length, weight, circumference of chest, mid-upper arm circumference, precautions to be taken.	July	4
				September	10

			<p>2. Comparison with norms and interpretation of the nutritional assessment data and its significance. Weight for age, height for age, weight for height, body Mass Index (BMI) Waist - Hip Ratio (WHR). Skin fold thickness.</p> <p>3. Growth charts - plotting of growth charts, growth monitoring and promotion.</p> <p>4. Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies.</p> <p>5. Estimation of food and nutrient intake: Household food consumption data, adult consumption unit, 24 hours dietary recall 24 hours record, Weighment method, food diaries, food frequency data, use of each of the above, in</p>	<p>November</p> <p>December</p>	<p>10</p> <p>10</p>
<b>Paper-VI</b>	Module-22	DIET THERAPY-(B1)	<p>Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management - insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods, sweetness and sugar substitute.</p> <p>Continued with previous chapter</p>	<p>July</p> <p>August</p> <p>September</p>	<p>4</p> <p>8</p> <p>10</p>



	Module-23	Diet Therapy (B2)	<p>2. Diseases of the cardiovascular system: Atherosclerosis Hyperlipidemias - brief review of Lipoprotein Dietary care: Ischemic Heart Disease - nutritional management. Hypertension - etiology, prevalence, nutritional management. Prevention of cardiovascular diseases and diet. Question answer discussion of C.U previous year.</p> <p>Renal Diseases: Classification, etiology, symptoms of Glomerulonephritis - dietary management. Acute and Chronic Nephritis - dietary management. Nephrotic syndrome - dietary management. Renal failure and Uraemia - dietary management. Nephrolithiasis - dietary management. Use of sodium and potassium exchange list.</p> <p>2. Allergies : Definitions, symptoms, diagnosis and dietary management - food selection.</p>	<p>November</p> <p>December</p>	<p>10</p> <p>8</p>
<b>Paper-VIII</b>	MODULE - 29.	DIETTHERAPY (A2) (PRACTICAL).	<p>Planning and preparation of Diets for the following diseases: • Diabetes mellitus • Peptic ulcers,</p> <p>• Viral hepatitis, • CHD</p>	<p>November</p> <p>December</p>	<p>8</p> <p>8</p>

Course Type (CC/SEC/ DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
	-CC-2-4- Th:	HUMAN PHYSIOLOGY-II	<p>Excretory system: Structure and function of skin,</p> <p>regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation.</p> <p>2. Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause.</p> <p>Brief concept on spermatogenesis and Oogenesis process.</p> <p>3. Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron, Concept on synapse and synaptic transmission. Reflexes,</p>	<p>March</p> <p>April</p> <p>May</p> <p>June</p>	<p>9</p> <p>10</p> <p>8</p> <p>10</p>
	-CC-2-4-P	HUMAN PHYSIOLOGY-II	<p>1. Harvard Step test</p> <p>2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).</p> <p>3. Qualitative determination of glucose acetone in urine.</p> <p>4. Blood film staining and identification of different types of blood cells.</p>	<p>March</p> <p>April</p> <p>May</p> <p>June</p>	<p>4</p> <p>8</p> <p>5</p> <p>6</p>

CC		HUMAN NUTRITION-II	Nutrition During Pregnancy :Factors (non-nutritional) affecting pregnancy outcome, importance of adequate weight gain during pregnancy, antenatal care and its schedule, Nutritional requirements during pregnancy and modification of existing diet and supplementation, Deficiency of nutrients, specially energy, iron folic acid, protein, calcium, iodine. Common problems of pregnancy and their managements, specially - nausea, vomiting, pica, food aversions, pregnancy induced hypertension, obesity, diabetes. Adolescent pregnancy.	February	6
				March	10
			Continued with previous chapter	April	12
			2. Nutrition during Lactation:Nutritional requirements during lactation, dietary management, food supplements, galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding. 3. Nutrition during Infancy:Infant physiology relevant to feeding and care, Breast feedingcolostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding.Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding-circumstances under which bottle feeding is to be	May	12

			given. Care & sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding  4. Management of preterm and low birth weight babies. 5. Nutritional needs of toddlers, preschool, school going children-and adolescents- Dietary management		
<b>Paper-VII</b>	MODULE - 29.	DIETTHERAPY (A2) (PRACTICAL).	<ul style="list-style-type: none"> <li>Gout</li> <li>Anemias.</li> </ul> Practice Practical and Discussion on viva-vosa	January  February	<b>4</b>  <b>6</b>
<b>PaperVIII</b>	Module-30	Hospital Internship Practical	Copy Checking and Project Formulation  Continued Project Formulation	January  February	<b>5</b>  <b>6</b>

#### Session 2020-2021 (Odd Semester)

Course Type (CC/SEC/DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
<b>CC</b>	-CC-1-2- Th:	HUMAN PHYSIOLOGY-I	1. Unit of Life: Structure and functions of cell with special reference to Plasma membrane (Fluid Mosaic Model), Mitochondria, Ribosome, Endoplasmic reticulum. Nucleus (nuclear membrane, nuclear chromatin and nucleolus). Nucleotide, Homeostasis, Positive and negative feed back	August	8
			2. Circulatory and Cardiovascular system: Blood and its composition, formed elements, Blood groups, Mechanism of blood coagulation, Introduction to	September	10

			<p>immune system, Erythropoiesis and anaemia, Structure and functions of heart, Cardiac cycle, cardiac output, blood pressure and its regulation.</p> <p>3. Digestive System: Structure and functions of G.I. tract, Process of digestion and absorption of food, Structure and functions of liver, gallbladder and pancreas.</p> <p>4. Respiratory System: Structure of Lungs and gaseous exchange (oxygen and carbon dioxide transport)</p> <p>5. Discussion on previous year C.U question paper &amp; unit test on each chapter</p>	<p>November</p> <p>December</p>	<p>10</p> <p>8</p>
<b>CC</b>	FNT-A-CC-1-2-P	HUMAN PHYSIOLOGY-I(PRACTICAL)	<p>1. Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)</p> <p>2. Determination of blood pressure by Sphygmomanometer (Auscultatory method).</p> <p>3. Measurement of Peak Expiratory flow rate.</p> <p>4. Determination of Bleeding Time (BT) and Clotting Time (CT).</p> <p>5. Detection of Blood group (Slide method). 6. Measurement of Haemoglobin level (Sahli's or Drabkin method)</p> <p>Practice practical</p>	<p>August</p> <p>September</p> <p>November</p> <p>December</p>	<p>6</p> <p>4</p> <p>6</p> <p>4</p>

CC	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.	July	4
			2. Minimum Nutritional Requirement and RDA: formulation of RDA and Dietary Guidelines Reference Man and Reference Woman, Adult consumption unit.	August	10
			3. Energy in Human Nutrition: Idea of Energy and its unit, Energy Balance, Assessment of Energy Requirements— deficiency and excess, Determination of Energy in food, B.M.R. and its regulation, S.D.A.	September	10
			4. Growth & Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development.	November	8
			5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering	December	8
			6.Question answer discussion of C.U previous year.		
CC	FNT-A-CC-3-6-P:	COMMUNITY NUTRITION (PRACTICAL)	1. Anthropometric Measurement of infant - Length, weight, circumference of chest, mid-upper arm circumference, precautions to be taken. 2. Comparison with norms and interpretation of the nutritional assessment data and its significance. Weight for age, height for age, weight for	September	10

			<p>height, body Mass Index (BMI) Waist - Hip Ratio (WHR). Skin fold thickness.</p> <p>3. Growth charts - plotting of growth charts, growth monitoring and promotion. 4. Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies.</p> <p>5. Estimation of food and nutrient intake: Household food consumption data, adult consumption unit, 24 hours dietary recall 24 hours record, Weighment method, food diaries, food frequency data, use of each of the above, in</p>	<p>November</p> <p>December</p>	<p>10</p> <p>10</p>
<b>CC</b>	FNT-A-CC-5-11-Th:	DIET THERAPY-II	<p>2. Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management -insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners</p> <p>Continued the previous chapter</p> <p>4 Renal Diseases: Etiology, symptoms and dietary management of acute and chronic Glomerulonephritis. Nephrotic syndrome - dietary management. Uraemia – dietary Nephrolithiasis - dietary</p>	<p>July</p> <p>August</p> <p>September</p> <p>November</p>	<p>4</p> <p>10</p> <p>10</p> <p>6</p>

			management. Use of sodium and potassium exchange list  Continued with previous chapter  Question answer discussion of C.U previous year.	December	4
<b>DSE-A</b>	FNT-A-DSE-A-5-1-P	PUBLIC HEALTH (PRACTICAL)	Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.  3. Field visit( health centre, immunization centre, ICDS, MCH centre, NGOs etc.)	November  December	<b>8</b>  <b>6</b>
<b>DSE-B</b>	FNT-A-DSE-B-5-1-P	Food safety and Quality control	Project work	November  December	<b>4</b>  <b>8</b>

#### Session 2020-2021 (Even Semester)

Course Type (CC/SEC/DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
	-CC-2-4-Th:	HUMAN PHYSIOLOGY-II	Excretory system: Structure and function of skin,  regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation. 2. Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause. Brief concept on spermatogenesis and Oogenesis process.	Febuary  March  April	4  9  12



			Continued with previous chapter  3. Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron, Concept on synapse and synaptic transmission. Reflexes,	May	10
	-CC-2-4-P	HUMAN PHYSIOLOGY-II	1. Harvard Step test 2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).  3. Qualitative determination of glucose acetone in urine. 4. Blood film staining and identification of different types of blood cells.	April  May	5  5
CC	FNT-A-CC-4-8-Th:	HUMAN NUTRITION-II	Nutrition During Pregnancy :Factors (non-nutritional) affecting pregnancy outcome, importance of adequate weight gain during pregnancy, antenatal care and its schedule, Nutritional requirements during pregnancy and modification of existing diet and supplementation, Deficiency of nutrients, specially energy, iron folic acid, protein, calcium, iodine. Common problems of pregnancy and their managements, specially - nausea, vomiting, pica, food aversions, pregnancy induced hypertension, obesity, diabetes. Adolescent pregnancy.  Continued with previous chapter  2. Nutrition during Lactation:Nutritional requirements during lactation, dietary management, food supplements,	Febuary  March  April	6  10  12

			<p>galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding. 3. Nutrition during Infancy: Infant physiology relevant to feeding and care, Breast feeding colostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding- circumstances under which bottle feeding is to be given. Care &amp; sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding</p> <p>4. Management of preterm and low birth weight babies. 5. Nutritional needs of toddlers, preschool, school going children- and adolescents- Dietary management</p>	May	12
DSE	FNT-A-DSE- A-6-4-Th:	GERIATRIC NUTRITION	<p>1. Definition of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition. Classification of old population. 2. Physiological and biochemical changes during old age.</p> <p>Continued with previous chapter</p> <p>3. Assessment of nutritional status of older adults. 4. Nutritional requirements and general dietary guidelines for elderly .</p> <p>5. Major nutritional and health problems during old age Discussion on previous year C.U Question paper.</p>	<p>February</p> <p>March</p> <p>April</p> <p>May</p>	<p>6</p> <p>8</p> <p>8</p> <p>8</p>

DSE	FNT-A-DSE- A-6-4-P:	GERIATRIC NUTRITION	2. Preparation of dishes suitable for older person- soft, semisolid and easily digestible balanced diet.	April	6
			Practical copy checking and discussion practical regarding	May	7

### Session 2021-2022 (Even Semester)

Course Type (CC/SEC/DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
	-CC-2-4-Th:	HUMAN PHYSIOLOGY-II	Excretory system: Structure and function of skin,	February	4
			regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation.	March	9
			2. Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause. Brief concept on spermatogenesis and Oogenesis process.	April	12
			Continued with previous chapter	May	10
	-CC-2-4-P	HUMAN PHYSIOLOGY-II	3. Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron, Concept on synapse and synaptic transmission. Reflexes,		
			1. Harvard Step test 2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).	April	5

			<p>3. Qualitative determination of glucose acetone in urine.</p> <p>4. Blood film staining and identification of different types of blood cells.</p>	May	5
CC	FNT-A-CC-4-8-Th:	HUMAN NUTRITION-II	<p>Nutrition During Pregnancy :Factors (non-nutritional) affecting pregnancy outcome, importance of adequate weight gain during pregnancy, antenatal care and its schedule, Nutritional requirements during pregnancy and modification of existing diet and supplementation, Deficiency of nutrients, specially energy, iron folic acid, protein, calcium, iodine. Common problems of pregnancy and their managements, specially - nausea, vomiting, pica, food aversions, pregnancy induced hypertension, obesity, diabetes. Adolescent pregnancy.</p>	February	6
			Continued with previous chapter	March	10
			<p>2. Nutrition during Lactation:Nutritional requirements during lactation, dietary management, food supplements, galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding. 3. Nutrition during Infancy:Infant physiology relevant to feeding and care, Breast feedingcolostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding.Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding-circumstances under which bottle feeding is to be given. Care &amp; sterilization of bottles.Preparation</p>	April	12

			of formula. Mixed feeding, breast feeding and artificial feeding	May	12
			4. Management of preterm and low birth weight babies. 5. Nutritional needs of toddlers, preschool, school going children- and adolescents- Dietary management		
DSE	FNT-A-DSE- A-6-4-Th:	GERIATRIC NUTRITION	1. Definition of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition. Classification of old population. 2 .Physiological and biochemical changes during old age.	February	6
			Continued with previous chapter	March	8
			3. Assessment of nutritional status of older adults. 4. Nutritional requirements and general dietary guidelines for elderly .	April	8
			5. Major nutritional and health problems during old age Discussion on previous year C.U Question paper.	May	8
DSE	FNT-A-DSE- A-6-4-P:	GERIATRIC NUTRITION	2. Preparation of dishes suitable for older person- soft, semisolid and easily digestible balanced diet.	April	6
			Practical copy checking and discussion practical regarding	May	7

### Session 2022-23 (Odd Semester)

Course Type (CC/SEC/ DSE)	Paper	Unit Name	Sub unit Name	Month	No. of classes
CC	-CC-1-2-Th:	HUMAN PHYSIOLOGY-I	1. Unit of Life: Structure and functions of cell with special reference to Plasma membrane	August	8

			<p>(Fluid Mosaic Model), Mitochondria, Ribosome, Endoplasmic reticulum. Nucleus (nuclear membrane, nuclear chromatin and nucleolus). Nucleotide, Homeostasis, Positive and negative feed back</p> <p>2. Circulatory and Cardiovascular system: Blood and its composition, formed elements, Blood groups, Mechanism of blood coagulation, Introduction to immune system, Erythropoiesis and anaemia, Structure and functions of heart, Cardiac cycle, cardiac output, blood pressure and its regulation.</p> <p>3. Digestive System: Structure and functions of G.I. tract, Process of digestion and absorption of food, Structure and functions of liver, gallbladder and pancreas.</p> <p>4. Respiratory System: Structure of Lungs and gaseous exchange (oxygen and carbon dioxide transport)</p> <p>5. Discussion on previous year C.U question paper &amp; unit test on each chapter</p>	<p>September</p> <p>November</p> <p>December</p>	<p>10</p> <p>10</p> <p>8</p>
<b>CC</b>	FNT-A-CC-1-2-P	HUMAN PHYSIOLOGY-I (PRACTICAL)	<p>1. Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)</p> <p>2. Determination of blood pressure by Sphygmomanometer (Auscultatory method).</p>	August	6

			<p>3. Measurement of Peak Expiratory flow rate.</p> <p>4. Determination of Bleeding Time (BT) and Clotting Time (CT).</p> <p>5. Detection of Blood group (Slide method). 6. Measurement of Haemoglobin level (Sahli's or Drabkin method )</p> <p>Practice practical</p>	<p>September</p> <p>November</p> <p>December</p>	<p>4</p> <p>6</p> <p>4</p>
<b>CC</b>	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	<p>1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.</p> <p>2. Minimum Nutritional Requirement and RDA: formulation of RDA and Dietary Guidelines Reference Man and Reference Woman, Adult consumption unit.</p> <p>3. Energy in Human Nutrition: Idea of Energy and its unit, Energy Balance, Assessment of Energy Requirements— deficiency and excess, Determination of Energy in food, B.M.R. and its regulation, S.D.A.</p> <p>4. Growth &amp; Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development.</p> <p>5. Growth monitoring and promotion: Use of growth</p>	<p>July</p> <p>August</p> <p>September</p> <p>November</p> <p>December</p>	<p><b>4</b></p> <p>10</p> <p>10</p> <p>8</p> <p>8</p>

			<p>charts and standards, Prevention of growth faltering</p> <p>6.Question answer discussion of C.U previous year.</p>		
<b>CC</b>	FNT-A- CC-3-6- P:	COMMUNITY NUTRITION (PRACTICAL)	<p>1. Anthropometric Measurement of infant - Length, weight, circumference of chest, mid-upper arm circumference, precautions to be taken. 2. Comparison with norms and interpretation of the nutritional assessment data and its significance. Weight for age, height for age, weight for height, body Mass Index (BMI) Waist - Hip Ratio (WHR). Skin fold thickness.</p>	<p>September</p> <p>November</p>	<p>10</p> <p>10</p>



			<p>3. Growth charts - plotting of growth charts, growth monitoring and promotion. 4. Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies.</p> <p>5. Estimation of food and nutrient intake: Household food consumption data, adult consumption unit, 24 hours dietary recall 24 hours record, Weighment method, food diaries, food frequency data, use of each of the above, in</p>	December	10
CC	FNT-A-CC-5-11-Th:	DIET THERAPY-II	2. Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management -insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners	July	4
			Continued the previous chapter	August	10
			4 Renal Diseases: Etiology, symptoms and dietary management of acute and chronic Glomerulonephritis. Nephrotic syndrome - dietary management. Uraemia – dietary Nephrolithiasis - dietary management. Use of sodium and potassium exchange list	September	10
			Continued with previous chapter	November	6
				December	4

			Question answer discussion of C.U previous year.		
<b>DSE-A</b>	FNT-A-DSE-A-5-1-P	PUBLIC HEALTH (PRACTICAL)	Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.	November	<b>8</b>
			3. Field visit( health centre, immunization centre, ICDS, MCH centre, NGOs etc.)	December	<b>6</b>
<b>DSE-B</b>	FNT-A-DSE-B-5-1-P	Food safety and Quality control	Project work	November	<b>4</b>
				December	<b>8</b>

**Session :2022-2023 (Even Semester)**

<b>Course Type (CC/SEC/DSE)</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub unit Name</b>	<b>Month</b>	<b>No. of classes</b>
<b>CC</b>	-CC-2-4- Th:	HUMAN PHYSIOLOGY-II	Excretory system: Structure and function of skin,	March	4
			regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation.	April	10
			2. Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause. Brief concept on spermatogenesis and Oogenesis process.		
			3. Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron,	May	10

			Concept on synapse and synaptic transmission. Reflexes,		
	-CC-2-4-P	HUMAN PHYSIOLOGY-II	<p>1. Harvard Step test</p> <p>2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).</p> <p>3. Qualitative determination of glucose acetone in urine.</p> <p>4. Blood film staining and identification of different types of blood cells.</p>	<p>April</p> <p>May</p>	<p>5</p> <p>5</p>
CC	FNT-A-CC-4-8-Th:	HUMAN NUTRITION-II	<p>Nutrition During Pregnancy: Factors (non-nutritional) affecting pregnancy outcome, importance of adequate weight gain during pregnancy, antenatal care and its schedule, Nutritional requirements during pregnancy and modification of existing diet and supplementation, Deficiency of nutrients, specially energy, iron folic acid, protein, calcium, iodine. Common problems of pregnancy and their managements, specially - nausea, vomiting, pica, food aversions, pregnancy induced hypertension, obesity, diabetes. Adolescent pregnancy.</p> <p>2. Nutrition during Lactation: Nutritional requirements during lactation, dietary management, food supplements, galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding. 3. Nutrition during Infancy: Infant physiology relevant to feeding and care, Breast feeding colostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding-</p>	<p>March</p> <p>April</p>	<p>10</p> <p>12</p>

			<p>circumstances under which bottle feeding is to be given. Care &amp; sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding</p> <p>4. Management of preterm and low birth weight babies. 5. Nutritional needs of toddlers, preschool, school going children- and adolescents- Dietary management</p>	May	12
DSE	FNT-A-DSE- A-6-4-Th:	GERIATRIC NUTRITION	<p>1. Definition of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition. Classification of old population. 2 .Physiological and biochemical changes during old age.</p> <p>3. Assessment of nutritional status of older adults. 4. Nutritional requirements and general dietary guidelines for elderly .</p> <p>5. Major nutritional and health problems during old age Discussion on previous year C.U Question paper.</p>	<p>March</p> <p>April</p> <p>May</p>	<p>8</p> <p>6</p> <p>8</p>
DSE	FNT-A-DSE- A-6-4-P:	GERIATRIC NUTRITION	2. Preparation of dishes suitable for older person- soft, semisolid and easily digestible balanced diet.	April	6
DSE	FNTA-DSE-B-6-3P	Food Fermentation (Practical)	<p>1. Demonstration of hygienic handling of equipment and utensils during food fermentation process.</p> <p>Preparation of different food items from fermented products</p> <p>Practical copy checking and discussion on viva-voce.</p>	<p>March</p> <p>April</p> <p>May</p>	<p>2</p> <p>8</p> <p>4</p>

## Teaching Plan

Department: **Food and Nutrition**

Name of the teacher: **DEBARATI DAS**

**Session: 2018-2019 (Odd Semester) CBCS (Sem 1), 1+1+1 (2nd year, 3rd year)**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC-1-1-Th:	BASIC FOOD SCIENCE	Proteins- Definition, Classification, Structure & properties. Amino acids- Classification, types, functions. Proteins - Sources, daily requirements, function. <b>Discussion on lesson taught</b>	August	8
CC	FNT-A-CC-1-2-Th:	HUMAN PHYSIOLOGY-I	Musculoskeletal System: Formation and functions of muscles, bones.	September	8
			Mechanism of muscle contraction, isometric and isotonic muscle contraction	November	8
			<b>Discussion on lesson taught</b>	December	4
Hons	III	UNIT-1, Module-9 Community Nutrition Theory	1. Concept of Community, types of Community, Factors affecting health of the Community.  2. Nutritional Assessment and Surveillance: Meaning, need,	August	10

			objectives and importance 3. Nutritional assessment of human: Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods.		
			Clinical Signs : Need & Importance's, identifying signs of PEM, vitamin A deficiency and iodine deficiency, Interpretation of descriptive list of clinical signs.	September	10
			Nutritional anthropometry : Need and importance, standard for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements. Use of growth chart.	November	10
			7 International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition Discussion regarding the taught topics	December	10
<b>HONS.</b>	<b>Paper-VII UNIT - II</b>	<b>UNIT - II MODULE - 26 FOOD</b>	1. Detection of Vanaspati in Ghee/Butter.	August	4

		<b>ADULTERATION (PRACTICAL)</b>	<p>2.Detection of Khesari flour in besan.</p> <p>3. Detection of Metanil yellow in turmeric/coloured sweet products.</p> <p>4. Detection of Argemon oil in edible oil</p> <p>5. Detection of artificially colour / foreign matter in tea (dust/leaves).</p>	<p>September</p> <p>November</p> <p>December</p>	<p>10</p> <p>10</p> <p>6</p>
<b>Hons.</b>	<b>PAPER – VI</b>	<b>UNIT - I MODULE - 20 DIET THERAPY- (A1)</b>	<p>. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets</p> <p>. 2. Team approach to health care. Assessment of needs.</p> <p>3. Routine Hospital Diets: Regular, light, soft, fluid, potential and enteral feeding.</p> <p>4. Energy modifications and nutritional care for weight management Identifying the overweight and obese, etiological factors contributing obesity, prevention and treatment. Low energy diets,</p>	<p>August</p> <p>September</p> <p>November</p>	<p>6</p> <p>10</p> <p>10</p>

			<p>balanced energy reduction and behavioural modifications, Underweight - etiology assessment, high energy diets for weight gain, anorexia nervosa and bulimia.</p> <p>5. Etiological factors, symptoms, diagnostic tests and management of upper GI tract disease - disease of oesophagus and dietary management, diseases of stomach and dietary management. Gastric and duodenal ul</p>	December	8
<b>Hons.</b>	<b>Paper-VI</b>	<b>MODULE - 21 DIET THERAPY- (A2)</b>	1. Diets for febrile conditions, infections and surgical conditions.	August	6
			2. Etiology, symptoms, diagnostic tests and management of intestinal diseases: Diarrhoea, steatorrhoea,	September	8
			Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence,	November	10



			Constipation, Irritable Bowel Syndrome  Haemorrhoids.	December	8
<b>HONS.</b>	<b>Paper-VI</b>	<b>UNIT - I ,MODULE - 20 DIET THERAPY- (A1)</b>	1. Planning and preparation of normal diets. 2. Planning and preparation of fluid diets. 3. Planning and preparation of soft/semi solid diets. 4. Planning and preparation of high protein diets. 5. Planning and preparation of low fat and low caloric diets. 6. Planning and preparation of high fibre diets.	December	8
	<b>PAPER- VIII</b>	<b>UNIT – II MODULE – 27 FOOD PRESERVATION (PRACTICAL)</b>	1. Different methods of Food preservation – Drying, Freezing, Frying, canning, bottling etc.  2. Aseptic handling : Sources of contamination of foods.  3. Preparation of pickles, tomato sauce, chili sauce,		

			jelli, tomato puree squash etc		
	<b>UNIT – I</b>	<b>MODULE - 28 DIET THERAPY (A1) (PRACTICAL)</b>	1. Planning and preparation of normal diets. 2. Planning and preparation of fluid diets.  3. Planning and preparation of soft/semi solid diets. 4. Planning and preparation of high protein diets.  5. Planning and preparation of low fat and low caloric diets.  6. Planning and preparation of high fibre diets	August   September   November   December	4   6   8   4

**Session: 2018-2019 (Even Semester) CBCS (Sem 2), 1+1+1 (2nd year, 3rd year)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>Hons.</b>	<b>III</b>	<b>UNIT – I MODULE – 9 COMMUNITY NUTRITION (Theory)</b>	<b>Discussions on questions of the test examinations.</b>	January	4
<b>Hons.</b>	<b>III</b>	<b>UNIT – I MODULE – 9 COMMUNITY NUTRITION (Theory)</b>	<b>Discussions of previous year CU questions</b>	February	2
<b>Hons.</b>	<b>IV</b>	<b>UNIT - I MODULE – 12 &amp; 13 FOOD</b>	<b>Discussions on CU questions of previous year</b>	January	3

		<b>COMMODITIES(A)</b>			
		<b>UNIT - I MODULE – 12 &amp; 13 FOOD COMMODITIES(A)</b>	<b>Discussions on CU questions of previous year</b>	February	2
Hons.	VI	<b>UNIT - I MODULE - 20 DIET THERAPY- (A1)</b>	<b>Discussions on CU questions of previous year</b>	January	2
Hons.	VIII	<b>UNIT – I MODULE - 28 DIED THERAPHY (A1) (PRACTICAL)</b>	<b>Conducted practical, Checking of final copy</b>	January	6
Hons.	VIII	<b>UNIT – I MODULE - 28 DIED THERAPHY (A1) (PRACTICAL)</b>	<b>Viva discussion and Practical Practice</b>	February	4
Hons.	VIII	<b>MODULE - 29 DIED THERAPHY (A2) (PRACTICAL)</b>	<b>Conducted practical, Checking of final copy</b>	February	6
			<b>Viva discussion and Practical Practice</b>	March	2
CC	<b>FNT-A- CC-2-3-Th</b>	<b>BASIC FOOD SCIENCE-II</b>	Dietary Fibre- Classification, sources, composition, properties & nutritional significance.	January	8
			Water - Functions, daily requirements, Water balance	February	6

			<b>Discussion on lessons taught</b>	March	4
			<b>Discussions on CU question papers of previous year</b>	April	2
CC	<b>FNT-A-CC-2-4-Th</b>	<b>HUMAN PHYSIOLOGY-II</b>	Special senses. 4. Endocrine system: Structure and functions of pituitary, thyroid, parathyroid and adrenal gland, Structure and functions of pancreas.	January	8
			<b>Endocrine system:</b> Structure and functions of pituitary	February	8
			<b>Endocrine system:</b> thyroid, parathyroid and adrenal gland, Structure and functions of pancreas.	March	8
			<b>Discussion on lessons taught</b>	April	4
			<b>Discussions on CU question papers of previous year</b>	May	4

**Session: 2019-2020 (Odd Semester) CBCS (Sem 1 & Sem 3 ), 1+1+1 (, 3rd year)**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	<b>FNT-A-CC-1-1-Th</b>	<b>BASIC FOOD SCIENCE</b>	Basic concept on Food, Nutrition and Nutrients. Classification of	July	8

			Food, Classification of Nutrients.		
			Proteins- Definition, Classification, functions. Proteins - Sources, daily requirements. <b>Discussion on lesson taught</b>	August	8
CC	FNT-A-CC-1-2-Th:	HUMAN PHYSIOLOGY-I	Musculoskeletal System: Formation and functions of muscles, bones. Mechanism of muscle contraction, isometric and isotonic muscle contract	September	8
			Discussion on lesson taught	November	4
CC	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms- Nutrition, Malnutrition and Health: Scope of Nutrition. 2. Minimum Nutritional Requirement and RDA: formulation of RDA and Dietary Guidelines Reference Man and Reference Woman, Adult consumption unit.	July	8
			3. Energy in Human Nutrition: Idea of Energy and its unit, Energy Balance, Assessment of Energy Requirements—	August	8

			<p>deficiency and excess, Determination of Energy in food, B.M.R. and its regulation, S.D.A.</p> <p>4. Growth &amp; Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development.</p>		
			5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering.	September	6
			<b>Discussion on lesions taught.</b> <b>Discussion of previous year CU Questions.</b>	November	4
<b>CC</b>	<b>FNT-A-CC-3-5-P</b>	<b>HUMAN NUTRITION-I (PRACTICAL)</b>	1. Process involved in cooking: pressure cooking, microwave ,steaming, grilling ,deep fat frying.	July	8
			2. General concepts of weights and measures. Eye	August	8

			estimation of raw and cooked foods 3. Preparation of food from different food groups and their significance in relation to health.		
			4. Preparation of supplementary food for different age group and their nutritional significance.	September	8
			5. Planning and preparation of low cost diet for Grade I and Grade II malnourished child	November	6
			<b>Discussions on Practical</b>	December	4
<b>CC</b>	<b>FNT-A-CC-3-6-Th</b>	<b>COMMUNITY NUTRITION</b>	1. Concept of Community, types of Community, Factors affecting health of the Community.  2. Nutritional Assessment and Surveillance: Meaning, need, objectives and importance	July	8
			3. Nutritional assessment of human: Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods.  4. Diet survey: Need and importance,	August	8

			methods of dietary survey, Interpretation - concept of consumption unit, individual and total distribution of food in family, adequacy of diet in respect to RDA, concept of family food security.		
			5. Clinical Signs: Need & Importance's, identifying signs of PEM, vitamin A deficiency and iodine deficiency, Interpretation of descriptive list of clinical signs.  6. Use of growth chart.	September	8
			7. International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition.	November	6
			<b>Discussion on lessons taught</b>	December	4
Hons.	VI	<b>UNIT – I MODULE - 20 DIET THERAPY- (A1)</b>	1. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets.	July	8



			2. Team approach to health care. Assessment of needs.		
			3. Routine Hospital Diets: Regular, light, soft, fluid, potential and enteral feeding.	August	8
			4. Energy modifications and nutritional care for weight management Identifying the overweight and obese, etiological factors contributing obesity, prevention and treatment. Low energy diets, balanced energy reduction and behavioural modifications, Underweight - etiology assessment, high energy diets for weight gain, anorexia nervosa and bulimia.	September	8
			5. Etiological factors, symptoms, diagnostic tests and management of upper GI tract disease - disease of	November	6

			oesophagus and dietary management, diseases of stomach and dietary management. Gastric and duodenal ulcers and dietary management		
			<b>Discussion on lesions taught.</b>  <b>Discussion of Previous year CU questions.</b>	December	4
Hons.	VI	<b>MODULE - 21 DIET THERAPY- (A2)</b>	1. Diets for febrile conditions, infections and surgical conditions.	August	8
			2. Etiology, symptoms, diagnostic tests and management of intestinal diseases: Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel Syndrome, Hemorrhoids.	September	8
			3. Anaemias: Pathogenesis and dietary management: Nutritional Anaemias,	November	

			thalassemia, resulting from Acute Hemorrhage.		
			<b>Discussion on lesions taught</b>	December	4
<b>Hons.</b>	<b>VI</b>	<b>MODULE - 26 FOOD ADULTERATION (PRACTICAL)</b>	1.Detection of Vanaspati in Ghee/Butter.  2. Detection of Khesari flour in besan. 3. Detection of Metanil yellow in turmeric/coloured sweet products.	July	8
			4. Detection of Argemon oil in edible oil  5. Detection of artificially colour / foreign matter in tea (dust/leaves).	August	8
<b>Hons.</b>	<b>VII</b>	<b>UNIT-II MODULE - 27 FOOD PRESERVATION (PRACTICAL)</b>	1. Different methods of Food preservation – Drying, Freezing, Frying, canning, bottling etc.  2. Aseptic handling : Sources of contamination of foods.	September	8
			3. Preparation of pickles, tomato sauce, chili sauce,	November	8

			jelli, tomato puree squash etc.  4. Visit to canning industry and dairy firm etc.		
<b>Hons.</b>	<b>VIII</b>	<b>UNIT – I MODULE - 28 DIET THERAPHY (A1) (PRACTICAL)</b>	1. Planning and preparation of normal diets. 2. Planning and preparation of fluid diets. 3. Planning and preparation of soft/semi solid diets. 4. Planning and preparation of high protein diets. 5. Planning and preparation of low fat and low caloric diets. 6. Planning and preparation of high fibre diets	December	8

**Session: 2019-2020 (Even Semester) CBCS (Sem 2 & Sem 4), 1+1+1 ( 3rd year)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC- 2-3-Th	<b>BASIC FOOD SCIENCE-II</b>	1. Dietary Fibre- Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.	March	8
CC	FNT-A-CC- 2-4-Th	<b>HUMAN PHYSIOLOGY- II</b>	3.Special senses.	April	6
			4. Endocrine system: Structure and functions of pituitary,	May	8
			4. Endocrine system: Thyroid, parathyroid and adrenal gland, Structure and functions of pancreas	June	8
CC	FNT-A-CC- 4-9-Th	<b>DIET THERAPY-I</b>	1. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets.  2. Team approach to health care. Assessment of Patient's needs. Syndrome.	February	8
			3. Routine Hospital Diets: Regular, light, soft, fluid, parenteral and enteral feeding.	March	8

			4. Diets for different febrile conditions: influenza, malaria and typhoid.		
			5. Etiological factors, symptoms, and management of common diseases of stomach-Gastritis and Peptic ulcer.  6. Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea,	April	8
			Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel	May	8
				February	4
				February	6
				January	8

**Session: 2020-2021 (Odd Semester) CBCS (Sem 1, Sem 3, Sem 5 )**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	FNT-A-CC-1-1-Th	BASIC FOOD SCIENCE	Basic concept on Food, Nutrition and Nutrients. Classification of Food, Classification of Nutrients.	August	8

			Proteins- Definition, Classification, functions. Proteins - Sources, daily requirements. <b>Discussion on lesson taught</b>	September	8
CC	FNT-A-CC-1-2-Th:	HUMAN PHYSIOLOGY-I	Musculoskeletal System: Formation and functions of muscles, bones. Mechanism of muscle contraction, isometric and isotonic muscle contract	November r	8
			Discussion on lesson taught	December	4
CC	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.  5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering.	July	8
CC	FNT-A-CC-3-6-Th	COMMUNITY NUTRITION	1. Concept of Community, types of Community, Factors affecting health of the Community.  2. Nutritional Assessment and Surveillance: Meaning, need, objectives and importance	August	8
			3. Nutritional assessment of human: Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods.  4. Diet survey: Need and importance, methods of dietary survey, Interpretation - concept of consumption unit, individual and total distribution of food in family, adequacy of diet in respect	September	8

			to RDA, concept of family food security.		
			5. Clinical Signs: Need & Importance's, identifying signs of PEM, vitamin A deficiency and iodine deficiency, Interpretation of descriptive list of clinical signs.  6. Use of growth chart.	November	8
			7. International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition.	December	8
<b>CC</b>	<b>FNT-A-CC-3-5-P</b>	<b>HUMAN NUTRITION-I (PRACTICAL)</b>	1. Process involved in cooking: pressure cooking, microwave, steaming, grilling, deep fat frying. 2. General concepts of weights and measures. Eye estimation of raw and cooked foods 3. Preparation of food from different food groups and their significance in relation to health.	November	8
			4. Preparation of supplementary food for different age group and their nutritional significance.  5. Planning and preparation of low cost diet for Grade I and Grade II malnourished child	December	6
<b>CC</b>	<b>FNT-A-CC-5-11-Th: DIET THERAPY-II</b>	<b>FNT-A-CC-5-11-Th: DIET THERAPY-II</b>	1. Energy modifications and nutritional care for weight management: Assessment, etiology, complications, prevention and treatment of obesity and underweight.	August	8



			<p>2. Diet in disease of the endocrine pancreas:  Diabetes Mellitus:  Classification, symptoms, diagnosis, management - insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners.</p>	September	8
			<p>3. Hypertension:  classification, aetiology, symptoms and dietary management.  Diseases of the cardiovascular system:  Definition of infarct, ischemia, angina pectoris, myocardial infarction, heart attack and stroke.</p>	November	8
			<p>Atherosclerosis and hyperlipidaemias –  classification, symptoms, dietary and lifestyle management. Prevention of cardiovascular diseases.</p>	December	8
CC	FNT-A-CC-5-11-P	<b>DIET THERAPY-II (PRACTICAL)</b>	<p>Planning and preparation of Diets for the following diseases:  i) Obesity and Underweight  ii) Diabetes mellitus  iii) Hypertension and Atherosclerosis</p>	December	8

CC	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	1. Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.  2. Formulation and preparation of low cost and medium cost nutritious/ supplementary recipe.	January	4
CC	<b>FNT-A-DSE-B-5-1-P</b>	<b>Food safety and quality control practical</b>	Preparation of project on the food safety and quality control topic and demonstration/presentation	November	4

**Session: 2020-2021 (Even Semester)**

**CBCS (Sem 2, Sem 4, Sem 6)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	<b>FNT-A-CC-2-3-Th</b>	<b>BASIC FOOD SCIENCE-II</b>	1. Dietary Fibre- Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.	February	8
CC	<b>FNT-A-CC-2-4-Th</b>	<b>HUMAN PHYSIOLOGY-II</b>	3.Special senses.	March	8
			4. Endocrine system: Structure	April	8

			and functions of pituitary,		
			4. Endocrine system: Thyroid, parathyroid and adrenal gland, Structure and functions of pancreas	May	8
<b>CC</b>	<b>FNT-A-CC-4-9-Th</b>	<b>DIET THERAPY-I</b>	1. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets.  2. Team approach to health care. Assessment of Patient's needs. Syndrome.	February	8
			3. Routine Hospital Diets: Regular, light, soft, fluid, parenteral and enteral feeding.  4. Diets for different febrile conditions: influenza, malaria and typhoid.	March	8
			5. Etiological factors, symptoms, and management of common diseases of stomach-Gastritis and Peptic ulcer.  6. Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea,	April	8

			Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel	May	8
<b>CC</b>	<b>FNT-A-CC-6-14- Th: FOOD PRESERVATION</b>	<b>FNT-A-CC-6-14- Th: FOOD PRESERVATION</b>	1. Food preservation: definition, objectives and principles of food preservation. Different methods of food preservation.	February	8
			2. Preserved Products: Jam, Jelly, Marmalade, Sauces, Pickles, Squashes, Syrups- types,	March	8
			composition and manufacture, selection, cost, storage, uses and nutritional aspects	April	8
			3. Food Standards : ISI, Agmark, FPO, MPO, PFA, FSSAI	May	8
			Discussion on lessons Taught  Discussion on CU previous year questions.	June	2

**Session: 2021-2022 (Odd Semester)**

**CBCS (Sem 1, Sem 3 & Sem 5 )**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC-1- 1-Th	BASIC FOOD SCIENCE	Basic concept on Food, Nutrition and Nutrients. Classification of Food, Classification of Nutrients.	September	8
			Proteins- Definition, Classification, functions. Proteins - Sources, daily requirements. <b>Discussion on lesson taught</b>	November	10
CC	FNT-A-CC-1- 2-Th:	HUMAN PHYSIOLOGY- I	Musculoskeletal System: Formation and functions of muscles, bones. Mechanism of muscle contraction, isometric and isotonic muscle contract	November	10
			<b>Discussion on lesson taught</b>	December	6
CC	FNT-A-CC-3- 5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.  5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering.	September	8
			7. International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition.	December	8
CC	FNT-A-CC-3- 5-P	HUMAN NUTRITION-I	1. Process involved in cooking: pressure cooking,	November	8

		( PRACTICAL)	<p>microwave ,steaming, grilling ,deep fat frying.</p> <p>2. General concepts of weights and measures. Eye estimation of raw and cooked foods</p> <p>3. Preparation of food from different food groups and their significance in relation to health.</p>		
			<p>4. Preparation of supplementary food for different age group and their nutritional significance.</p> <p>5. Planning and preparation of low cost diet for Grade I and Grade II malnourished child</p>	December	6
CC	FNT-A-CC-5-11-Th	FNT-A-CC-5-11-Th: DIET THERAPY-II	<p>1. Energy modifications and nutritional care for weight management: Assessment, etiology, complications, prevention and treatment of obesity and underweight.</p>	August	8
			<p>2. Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management - insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners.</p>	September	8
			<p>3. Hypertension: classification, aetiology, symptoms and dietary management.</p>	November	8

			Diseases of the cardiovascular system: Definition of infarct, ischemia, angina pectoris, myocardial infarction, heart attack and stroke.		
			Atherosclerosis and hyperlipidaemias – classification, symptoms, dietary and lifestyle management. Prevention of cardiovascular diseases.	December	8
CC	<b>FNT-A-CC-5-11-P</b>	<b>DIET THERAPY-II (PRACTICAL)</b>	Planning and preparation of Diets for the following diseases: i) Obesity and Underweight ii) Diabetes mellitus iii) Hypertension and Atherosclerosis	December	8
CC	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	1. Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.  2. Formulation and preparation of low cost and medium cost nutritious/ supplementary recipe.	January	4
CC	<b>FNT-A-DSE-B-5-1-P</b>	<b>Food safety and quality control practical</b>	Preparation of project on the food safety and quality control topic and demonstration/presentation	November	4

**Session: 2021-2022 (Even Semester)**

**CBCS (Sem 2, Sem 4, Sem 6)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>CC</b>	<b>FNT-A-CC-2-3- Th</b>	<b>BASIC FOOD SCIENCE-II</b>	1. Dietary Fibre- Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.	February	8
<b>CC</b>	<b>FNT-A-CC-2-4- Th</b>	<b>HUMAN PHYSIOLOGY-II</b>	2. Special senses.	March	8
			4. Endocrine system: Structure and functions of pituitary,	April	8
			4. Endocrine system: Thyroid, parathyroid and adrenal gland, Structure and functions of pancreas	May	8
<b>CC</b>	<b>FNT-A-CC-4-9- Th</b>	<b>DIET THERAPY- I</b>	1. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and Classification of the therapeutic diets.  2. Team approach to health care. Assessment of	February	8



			Patient's needs. Syndrome.		
			3. Routine Hospital Diets: Regular, light, soft, fluid, parenteral and enteral feeding.  4. Diets for different febrile conditions: influenza, malaria and typhoid.	March	8
			5. Etiological factors, symptoms, and management of common diseases of stomach- Gastritis and Peptic ulcer.  6. Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea,	April	8
			Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel	May	8
CC	<b>FNT-A-CC-6-14- Th: FOOD PRESERVATION</b>	<b>FNT-A-CC-6-14- Th: FOOD PRESERVATION</b>	1. Food preservation: definition, objectives and principles of food preservation. Different methods of food preservation.	February	8
			2. Preserved Products: Jam, Jelly, Marmalade, Sauces, Pickles, Squashes, Syrups-types,	March	8
			composition and manufacture, selection, cost, storage, uses and nutritional aspects	April	8
			3. Food Standards : ISI, Agmark, FPO, MPO, PFA, FSSAI	May	8

			Discussion on lessons Taught	June	2
			Discussion on CU previous year questions.		

**Session: 2022-2023 (Odd Semester)**

**CBCS (Sem 1, Sem 3 & Sem 5 )**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC-1-1-Th	BASIC FOOD SCIENCE	Basic concept on Food, Nutrition and Nutrients. Classification of Food, Classification of Nutrients.	September	8
			Proteins- Definition, Classification, functions. Proteins - Sources, daily requirements. <b>Discussion on lesson taught</b>	November	10
CC	FNT-A-CC-1-2-Th:	HUMAN PHYSIOLOGY-I	Musculoskeletal System: Formation and functions of muscles, bones. Mechanism of muscle contraction, isometric and isotonic muscle contract	November	10
			<b>Discussion on lesson taught</b>	December	6
CC	FNT-A-CC-3-5-Th	HUMAN NUTRITION-I	1. Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition.	September	8

			5. Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering.		
			7. International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition.	December	8
<b>CC</b>	<b>FNT-A-CC-3-5-P</b>	<b>HUMAN NUTRITION-I ( PRACTICAL)</b>	1. Process involved in cooking: pressure cooking, microwave ,steaming, grilling ,deep fat frying. 2. General concepts of weights and measures. Eye estimation of raw and cooked foods 3. Preparation of food from different food groups and their significance in relation to health.	November	8
			4. Preparation of supplementary food for different age group and their nutritional significance.	December	6
<b>CC</b>	<b>FNT-A-CC-5-11-Th</b>	<b>FNT-A-CC-5-11-Th: DIET THERAPY-II</b>	1. Energy modifications and nutritional care for weight management: Assessment, etiology, complications, prevention and treatment of obesity and underweight.	August	8
			2. Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management -	September	8

			insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners.		
			3. Hypertension: classification, aetiology, symptoms and dietary management. Diseases of the cardiovascular system: Definition of infarct, ischemia, angina pectoris, myocardial infarction, heart attack and stroke.	November	8
			Atherosclerosis and hyperlipidaemias – classification, symptoms, dietary and lifestyle management. Prevention of cardiovascular diseases.	December	8
CC	<b>FNT-A-CC-5-11-P</b>	<b>DIET THERAPY-II (PRACTICAL)</b>	Planning and preparation of Diets for the following diseases: i) Obesity and Underweight iii) Hypertension and Atherosclerosis	December	8
CC	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	<b>FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)</b>	1. Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.  3. Formulation and preparation of low cost and	December	4

			medium cost nutritious/ supplementary recipe.		
<b>CC</b>	<b>FNT-A-DSE- B-5-1-P</b>	<b>Food safety and quality control practical</b>	Preparation of project on the food safety and quality control topic and demonstration/presentation	January	2

**Session: 2022-2023 (Even Semester)**

**CBCS (Sem 2, Sem 4, Sem 6)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>CC</b>	<b>FNT-A-CC-2-3- Th</b>	<b>BASIC FOOD SCIENCE-II</b>	1. Dietary Fibre- Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.	February	8
<b>CC</b>	<b>FNT-A-CC-2-4- Th</b>	<b>HUMAN PHYSIOLOGY-II</b>	1. Special senses.	March	8
			4. Endocrine system: Structure and functions of pituitary,	April	8
			4. Endocrine system: Thyroid, parathyroid and adrenal gland, Structure and functions of pancreas	May	8
<b>CC</b>	<b>FNT-A-CC-4-9- Th</b>	<b>DIET THERAPY-I</b>	1. Basic concepts of diet therapy: Therapeutic	February	8

			<p>adaptations of normal diet, principles and Classification of the therapeutic diets.</p> <p>2. Team approach to health care. Assessment of Patient's needs. Syndrome.</p>		
			<p>3. Routine Hospital Diets: Regular, light, soft, fluid, parenteral and enteral feeding.</p> <p>4. Diets for different febrile conditions: influenza, malaria and typhoid.</p>	March	8
			<p>5. Etiological factors, symptoms, and management of common diseases of stomach- Gastritis and Peptic ulcer.</p> <p>6. Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea,</p>	April	8
			<p>Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel</p>	May	8
CC	<b>FNT-A-CC-6-14-Th: FOOD PRESERVATION</b>	<b>FNT-A-CC-6-14-Th: FOOD PRESERVATION</b>	<p>1. Food preservation: definition, objectives and principles of food preservation. Different methods of food preservation.</p>	February	8
			<p>2. Preserved Products: Jam, Jelly, Marmalade, Sauces, Pickles, Squashes, Syrups-types,</p>	March	8
			composition and	April	8

			manufacture, selection, cost, storage, uses and nutritional aspects		
			3. Food Standards : ISI, Agmark, FPO, MPO, PFA, FSSAI	May	8
			Discussion on lessons Taught  Discussion on CU previous year questions.	June	2
CC	<b>FNT-A-CC-6-14-P</b>	<b>FOOD PRESERVATION (PRACTICAL)</b>	1. Different methods of Food preservation – Drying, Freezing, Frying, canning, bottling etc. 2. Aseptic handling: Sources of contamination of foods. 3. Preparation of pickles, tomato sauce, chili sauce, jelly, tomato puree, squashes etc.	March  April  May	8  8  4
CC	<b>FNT-A-DSE-B-6-3-P</b>	<b>FOOD FERMENTATION (PRACTICAL)</b>	1. Demonstration of hygienic handling of equipment and utensils during food fermentation process. 2. Preparation of fermented food-dahi & yogurt. 4. Preparation of different food items from fermented products. 5. Discussion on CU previous year questions on Practical.	February  March  April  May	2  4  4  2

## Teaching Plan

**Department: Food And Nutrition**

**Name of Teacher: Dr. Aparna Maitra**

**Session: 2018-2019 (Odd Semester) CBCS (SEM-1), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
HONS.	Paper-V	Nutritional Biochemistry – A (Unit-I, Module – 16 )	<b><i>Carbohydrate Metabolism</i></b> Glycolysis, TCA cycle & energy generation.	July	4
			<b><i>Carbohydrate Metabolism (contd..)</i></b> Gluconeogenesis, glycogenesis, glycogenolysis,. Blood sugar regulation.	August	8
			<b><u>Lipid Metabolism:</u></b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated) : Synthesis and utilization of ketone bodies, Ketosis, fatty livers	September	6
	Paper-VII	Food Science Practical (Unit-I, Module – 24 )	1. Identification of Mono, Di and Polysaccharides 2. Identification of Proteins (albumin, gelatin, peptone) 3. Identification of glycerol 4. Determination of Acid value of fats and oils. 5. Estimation of amino nitrogen by titrimetric method.	November	8
		Nutritional Biochemistry Practical (Module – 25 )	1. Estimation of serum Protein (Biuret method and Lowry method) 2. Estimation of blood Glucose (Folin Wu method) 3. Estimation of Serum inorganic phosphorus (Fiske and SubbaRow method). 4. Estimation of blood creatinine.	December	8



**Session: 2018-2019 (Even Semester) CBCS (SEM-2), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
HONS.	Paper-V	Nutritional Biochemistry	Question answer discussion	January	6
			Question answer discussion	February	3

**Session: 2019-2020 (Odd Semester) CBCS (SEM-1), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
HONS.	Paper-V	Nutritional Biochemistry – A (Unit-I, Module – 16 )	<b><i>Carbohydrate Metabolism</i></b> Glycolysis, TCA cycle & energy generation.	July	4
			<b><i>Carbohydrate Metabolism (contd..)</i></b> Gluconeogenesis, glycogenesis, glycogenolysis, Blood sugar regulation.	August	8
			<b><u>Lipid Metabolism:</u></b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated) : Synthesis and utilization of ketone bodies, Ketosis, fatty livers	September	6
	Paper-VII	Food Science Practical (Unit-I, Module – 24 )	1. Identification of Mono, Di and Polysaccharides 2. Identification of Proteins (albumin, gelatin, peptone) 3. Identification of glycerol 4. Estimation of amino nitrogen by titrimetric method.	November	8

## Teaching Plan

Department: **FOOD AND NUTRITION**

Name of the teacher: **BEAUTY DEY CHOWDHURY**

**Session: 2018-2019 (Odd Semester)**

**C B C S 1<sup>st</sup> Sem, 1+1+1(2<sup>nd</sup> & 3<sup>rd</sup>  
Year)**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA- CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	July	6
CC	FNTA- CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –Contd.</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	August	8

			<b>Lipids –Contd.</b> Definition, Classification & Properties. Fatty acids- composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	September	6
			<b>Discussion of problems and lessons taught.</b> <b>Class tests on the covered topics.</b>	November	2
			<b>Discussion on previous year CU questions</b>	December	2
<b>HONS.</b>	<b>PAPER – IV</b>	<b>(UNIT – I, MODULE – 12)</b> <b>FOOD COMMODITIES(A)</b> <b>(Theory)</b>	<b>1. Cereals and Millets:</b> Structure, processing, storage, use in various preparation, variety, selection and cost. Cereal products, breakfast cereals, fast food.	July	6
			<b>6. Vegetables and Fruits:</b> Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.	August	9
<b>HONS.</b>	<b>PAPER – IV</b>	<b>(UNIT – I, MODULE – 13)</b> <b>FOOD COMMODITIES(B)</b> <b>(Theory)</b>	<b>5. Convenience Foods:</b> Role, types, advantages, uses, cost and contribution to diet.	September	8

			<b>6. Salt :</b> Types and uses.  <b>7. Beverages:</b> Tea; Coffee. Chocolate and Cocoa Powder-Processing, cost and nutritional aspects, other beverages-Aerated beverages, juices.		
			<b>8. Preserved Products:</b> Jams, Jellies, Pickles, Squashes, Syrupstypes, composition and manufacture, selection, cost, storage, uses and nutritional aspects.	November	6
			<b>9. Food Standards:</b> ISI, Agmark, FPO, MPO, PFA. <i>Discussion on previous year CU questions</i>	December	4
<b>HONS.</b>	<b>UNIT – I, MODULE - 21</b>	<b>DIET THERAPY- (A2) (Theory)</b>	<b>4. Diseases of the liver,</b> Exocrine Pancreas and Billiary System.	July	6
			Liver function tests and nutritional care in liver disease in the context of results. Dietary care and management in - Viral Hepatitis, Cirrhosis of liver, Dietary care and management in diseases of Gall Bladder and pancreas- Cholelithiasis, Cholecystitis. Cholecystectomy, etc.  <b>Discussion of problems and lessons taught</b>	August	9
<b>HONS.</b>	<b>UNIT-1, MODULE - 22</b>	<b>MODULE - 22 DIET THERAPY- (B1)</b>	<b>2. Diseases of the cardiovascular system:</b> Atherosclerosis	September	10

		<b>(Theory)</b>	Hyperlipidemias - brief review of Lipoprotein Dietary care: Ischemic Heart Disease - nutritional management. Hypertension - etiology, prevalence, nutritional management. Prevention of cardiovascular diseases and diet.		
<b>HONS.</b>	<b>UNIT-1, MODULE-23</b>	<b>DIET THERAPY-(B2) (Theory)</b>	<b>1 .Renal Diseases:</b> Classification, etiology, symptoms of Glomerulonephritis - dietary management. Acute and Chronic Nephritis - dietary management. Nephrotic syndrome - dietary management. Renal failure and Uraemia - dietary management.	November	8
			<b>Nephrolithiasis</b> - dietary management. Use of sodium and potassium exchange list.  <b>2. Allergies</b> : Definitions, symptoms, diagnosis and dietary management - food selection.	December	6
			<b>Discussion of problems and lessons taught</b>	January	4

**Session: 2018-2019 (Even Semester)**

**C B C S 2<sup>nd</sup> Sem,1+1+1(2<sup>nd</sup> year & 3<sup>rd</sup> Year)**

Course type (CC/	Paper	Unit name	Sub-unit name	Month	No. of classes
---------------------	-------	-----------	---------------	-------	-------------------

GE/SEC/ AECC/DSE)					
Hons.	PAPER – IV	UNIT – I, MODULE - 12 FOOD COMMODITIES(A)	Discussions on questions of test examinations.	January	4
Hons.	PAPER – IV	UNIT – I, MODULE – 13 FOOD COMMODITIES(B)	Discussions on previous year questions of CU.	February	2
HONS.	PAPER – VI	UNIT-I, MODULE -21 DIET THERAPY- (A2)	Discussions of Test examination & previous year CU questions	January	4
HONS.	PAPER – VI	UNIT-I, MODULE - 22 DIET THERAPY- (B1)	Discussions on previous year questions of CU	February	2
HONS.	PAPER – VI	UNIT-I MODULE - 23 DIET THERAPY- (B2)	<i>Discussion on previous year CU questions</i>	January	2
CC	FNTA- CC3Th	BASIC FOOD SCIENCE-II	<b>Water Soluble Vitamins</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	January	6
CC	FNTA- CC5Th	HUMAN NUTRITION-I (Theory)	<b>Water Soluble Vitamins</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	February	8
			<b>Continuation of above chapter.</b>	March	8

			<b>Discussion of problems and lessons taught</b>		
CC	FNTA-CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	April	6
CC	FNTA-CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess. & <b>Discussion of problems and lessons taught &amp; previous year CU questions solving</b>	May	4

**Session: 2020-2021 (Odd Semester)**  
**1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids</b> -Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of	August	6

			nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid		
CC	FNTA-CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids</b> –Contd. Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	September	6
CC	FNTA-CC1Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids</b> –Contd. Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	November	6
			Discussion of problems and lessons taught & previos year CU questions	December	4
CC	FNTA-CC5Th	HUMAN NUTRITION-I (Theory)	<b>Growth &amp; Development from infancy to adulthood:</b> Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development.	July	10



			Importance of Nutrition for ensuring adequate development		
CC	FNTA-CC5Th	HUMAN NUTRITION-I (Theory)	<b>Growth &amp; Development from infancy to adulthood:</b> Contd. Somatic, physical, brain and mental development, puberty, menarche, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development	August	10
CC	FNTA-CC6Th	COMMUNITY NUTRITION (Theory)	<b>Nutritional assessment of human:</b> Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods  <b>Nutritional anthropometry:</b> Need and importance, standard for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements. Use of growth chart.	September	8
			<b>Nutritional assessment of human-Contd.:</b> Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods	November	8

			<b>Nutritional anthropometry- Contd.</b> Need and importance, standard for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements. Use of growth chart.		
			<b>Discussion of problems and lessons taught &amp; previous year CU questions- answers</b>	December	6
CC	FNTA-CC11Th	DIET THERAPY-II (Theory)	<b>Renal Diseases:</b> Etiology, symptoms and dietary management of acute and chronic Glomerulonephritis. Nephrotic syndrome - dietary management. Uraemia – dietary Nephrolithiasis - dietary management. Use of sodium and potassium exchange list.	July	8
CC	FNTA-CC11Th	DIET THERAPY-II (Theory)	<b>Renal Diseases- Contd.:</b> Etiology, symptoms and dietary management of acute and chronic Glomerulonephritis. Nephrotic syndrome - dietary management. Uraemia – dietary Nephrolithiasis - dietary management. Use of sodium and potassium exchange list. <u><b>Discussion of Problems</b></u>	August	8

DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL	<p><b>Introduction to Food safety:</b> Definitions, types of hazard- physical, chemical and biological, factors affecting food safety.</p> <p><b>Food hazards:</b> types of hazard. Physical, Chemical hazards(naturally occurring, environmental, and intentionally added) and biological (food borne pathogens- bacteria, viruses and eukaryotes; sea food and shellfish poisoning and mycotoxins)</p> <p><u><b>Discussion of Problems</b></u></p>	September	8
DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<p><b>Management of Food Hazard:</b> Need, control of parameters, temperature control, Food storage.</p> <p><b>Hygiene and Sanitation:</b> Sources of Contamination, control methods using physical and chemical agents, Waste disposal, pest and rodent control, Personnel hygiene.</p> <p><u><b>Discussion of Problems</b></u></p>	November	8
DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<p><b>Food Safety Management Tools:</b> Basic concept, prerequisites- GHPs, GMPs, HACCP, ISO Series, TQM – Concept and need for quality, Components of TQM. Risk Analysis.</p>	December	4

			<b>Food Laws and Standards:</b> International Food Standards-ISO and CODEX Alimentarius. National Food Standards ( BIS, AGMARK) and Food laws (PFA and FSSAI). <u>Discussion of Problems</u>		
DSE	FNTA-DSE-B5-1P	FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	Discussion of problems and lessons taught & <u>Preparation of project on the covered topics</u>	January	4
DSE	FNTA-DSE-B5-1P	FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	<u>Preparation of project on the covered topics</u>	February	2

**Session: 2020-2021 (Even Semester) 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>**  
**( Maternity leave from March to August)**

**Session: 2021-2022 (Odd Semester)**  
**1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-CC-1- Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	September	6
CC	FNTA-CC-1- Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –Contd.</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	November	6
			<b><i>Discussion of problems and lessons taught. Discussion on previous year CU questions</i></b>	December	4
CC	FNTA-CC-5- Th	HUMAN NUTRITION-I (Theory)	<b>Growth &amp; Development from infancy to adulthood:</b> Somatic, physical, brain and mental development,	July	9

			puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development		
CC	FNTA-CC-5-Th	HUMAN NUTRITION-I (Theory)	<b>Growth &amp; Development from infancy to adulthood:</b> Contd. Somatic, physical, brain and mental development, puberty, menarche, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development	August	9
			<b>Discussion of problems and lessons taught &amp; previous year CU questions solving</b>	September	8
CC	FNTA-CC-5-P	HUMAN NUTRITION-I (Practical)	1.Process involved in cooking: pressure cooking, microwave ,steaming, grilling ,deep fat frying. 2. General concepts of weights and measures. Eye estimation of raw and cooked foods 3. Preparation of food from different food groups and their significance in relation to health.	November	8
CC	FNTA-CC-5-P	HUMAN NUTRITION-I (Practical)	<b>Practical Contd.</b> 4. Preparation of supplementary food for different age	December	8

			group and their nutritional 5. Planning and preparation of low cost diet for Grade I and Grade II malnourished child		
CC	FNTA-CC-11-P	DIET THERAPY-II (PRACTICAL)	Planning and preparation of Diets for the following diseases: i) Obesity and Underweight ii) Diabetes mellitus iii) Hypertension and Atherosclerosis iv) Acute and chronic glomerulonephritis.	November	8
CC	FNTA-CC-11-P	DIET THERAPY-II (PRATICAL)	<b>Practical Continued...</b> Planning and preparation of Diets for the following diseases: iii) Hypertension and Atherosclerosis iv) Acute and chronic glomerulonephritis & <b><u>Discussion of Problems</u></b>	December	8
DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<b>Introduction to Food safety:</b> Definitions, types of hazard- physical, chemical and biological, factors affecting food safety. <b>Food hazards:</b> types of hazard. Physical, Chemical hazards(naturally occurring, environmental, and intentionally added) and biological (food borne pathogens- bacteria, viruses and eukaryotes; sea food and shellfish poisoning and mycotoxins)	September	8

			<b><u>Discussion of Problems</u></b>		
DSE	FNTA-DSE-B5-1-Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<b>Management of Food Hazard:</b> Need, control of parameters, temperature control, Food storage.  <b>Hygiene and Sanitation:</b> Sources of Contamination, control methods using physical and chemical agents, Waste disposal, pest and rodent control, Personnel hygiene. <b><u>Discussion of Problems</u></b>	November	8
DSE	FNTA-DSE-B5-1-Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<b>Food Safety Management Tools:</b> Basic concept, prerequisites- GHPs, GMPs, HACCP, ISO Series, TQM – Concept and need for quality, Components of TQM. Risk Analysis.  <b>Food Laws and Standards:</b> International Food Standards-ISO and CODEX Alimentarius. National Food Standards ( BIS, AGMARK) and Food laws (PFA and FSSAI). <b><u>Discussion of Problems</u></b>	December	4
DSE	FNTA-DSE-B5-1-Th	FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	<b>Discussion of problems and lessons taught &amp; <u>Preparation of project on the covered topics</u></b>	January	4



DSE	FNTA-DSE-B5-1-P	FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	<u>Preparation of project on the covered topics.</u>	February	2
-----	-----------------	---	--	----------	---

**Session: 2021-2022**  
**(Even Semester) 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-CC-3-Th	BASIC FOOD SCIENCE-II (Theory)	<b>Water Soluble Vitamins</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	March	6
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	April	6
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess. & <b>Discussion of problems and lessons taught &amp; previous year CU questions solving</b>	May	4

<b>CC</b>	<b>FNTA-CC-8-Th</b>	<b>HUMAN NUTRITION-II (Theory)</b>	<b>Nutrition during Infancy:</b> Infant physiology relevant to feeding and care, Breast feeding Colostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding-circumstances under which bottle feeding is to be given. Care & sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding. <b>Management of preterm and low birth weight babies.</b>	February	9
<b>CC</b>	<b>FNTA-CC-8-Th</b>	<b>HUMAN NUTRITION-II (Theory)</b>	<b>Nutrition during Infancy Contd. :</b> Infant physiology relevant to feeding and care, Breast feeding Colostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding. Introduction of supplementary foods, initiation and	March	9

			management of weaning, Baby-led weaning. Bottle feeding-circumstances under which bottle feeding is to be given. Care & sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding. <b>Management of preterm and low birth weight babies.</b>		
CC	FNTA-CC8P	HUMAN NUTRITION-II (PRACTICAL)	<b>Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions:</b> infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	April	8
			<u><b>Continuation of Practical &amp; practical copy checking</b></u>  <b>Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions:</b> infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	May	8
CC	FNTA-CC-9-Th	DIET THERAPY-I (Theory)	<b>Aetiology, symptoms, and management of intestinal diseases:</b> Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative	April	8

			Colitis, Flatulence, Constipation, Irritable Bowel Syndrome.		
CC	FNTA-CC-9-Th	DIET THERAPY-I (Theory)	<b>Aetiology, symptoms, and management of intestinal diseases:</b> Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel Syndrome.	May	6
SEC	FNTA-SEC-B1Th	<b>NUTRITION AND HEALTH EDUCATION (Theory)</b>	1. <b>Concept, objectives and importance of nutrition and health education</b> 2.Principles of health education. 3 Nutrition and health education communication process. 4 Steps in planning health and nutrition education. 5 Methods involved in nutrition and health education 6 Evaluation of nutrition and health education programmes. <u><b>Discussion of Problems</b></u>	February	8
SEC	FNTA-SEC-B1Th	<b>NUTRITION AND HEALTH EDUCATION (Theory)</b>	<b>Continuation ...</b> 4 .Steps in planning health and nutrition education. 5 Methods involved in nutrition and health education 6. Evaluation of nutrition and health education programmes. <u><b>Discussion of Problems</b></u>	March	8
			<b>Discussion of problems and lessons taught &amp; previous</b>	April	8

			<b>year CU questions Solving. Class test on covered topics.</b>		
<b>CC</b>	<b>FNTA-CC-14-Th</b>	<b>FOOD PRESERVATION (Theory)</b>	Food Standards : ISI, Agmark, FPO, MPO, PFA, FSSAI.	February	8
<b>DSE</b>	<b>FNTA-DSE-B6-3Th</b>	<b>FOOD FERMENTATION (Theory)</b>	<p>5. Production of Baker's yeast.</p> <p>6. Production and nutritional significance of fermented milk products and vinegar.</p> <p>7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi.</p> <p>Nutritional Significance of the above products.</p> <p><b><u>Discussion of Problems</u></b></p>	March	8
<b>DSE</b>	<b>FNTA-DSE-B6-3Th</b>	<b>FOOD FERMENTATION (Theory)</b>	<p><b>Continuation...</b></p> <p>5. Production of Baker's yeast.</p> <p>6. Production and nutritional significance of fermented milk products and vinegar.</p> <p>7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi.</p> <p>Nutritional Significance of the above products.</p> <p><b><u>Discussion of Problems</u></b></p>	April	8

			<p><b>Continuation...</b></p> <p>5. Production of Baker's yeast.</p> <p>6. Production and nutritional significance of fermented milk products and vinegar.</p> <p>7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi.</p> <p>Nutritional Significance of the above products.</p> <p><b><u>Discussion of Problems .</u></b></p>	May	4
DSE	FNTA-DSE-B6-3-P	FOOD FERMENTATION (Practical)	<p>1. Demonstration of hygienic handling of equipment and utensils during food fermentation process.</p> <p>2. Preparation of fermented food-Dahi and Yogurt</p> <p>3. Preparation of fermented vegetable pickles.</p> <p>4. Preparation of different food items from fermented products.</p>	April	8
CC	FNTA-CC-13-P	FOOD MICROBIOLOGY (PRACTICAL)	<p><b>Staining Techniques to study of Morphology of bacterial cells:</b> Simple staining with methylene blue, methyl violet, carbolfuschin, etc.</p> <p>Differential staining</p>	May	8

			with Gram stain technique 5. Microbiological techniques: Pure culture technique- Spread plate, Pour plate and Streak plate.		
--	--	--	---	--	--

**Session: 2022-2023 (Odd Semester)**  
**1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	August	6
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Lipids –Contd.</b> Definition, Classification & Properties-Chemical & Physical. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	September	6

			<b>Lipids –Contd.</b> Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	November	6
			<b><i>Discussion of problems of previous year CU questions. Class test on covered topics</i></b>	December	6
SEC	FNTA-SEC- A1Th	SPORTS NUTRITION (Theory)	1. Definition of physical activity, exercise, physical fitness, sports physiology and sports nutrition. 2. Benefits of physical activity and exercise.  <b>Discussion of problems and lessons taught</b>	August	8
			3. Classification of Sports activities. 4. Nutritional requirements of sports person. 5. Pre- event meal <b>Discussion of problems and lessons taught</b>	September	8
			<b>Continuation...</b> Nutritional Requirements of Sports person, Fluid & electrolytes for Athletes, Isotonic, Hypo & Hypertonic beverages. <b>Discussion of problems and lessons taught</b>	November	6
			<b>Class tests and Assignments on covered topic</b>	December	4



CC	FNTA-CC-5-P	HUMAN NUTRITION-I (PRACTICAL)	<p>1. Process involved in cooking: pressure cooking, microwave ,steaming</p> <p>3. Preparation of food from different food groups and their significance in relation to health.</p>	November	4
			<p><b><u>Continuation of Practical</u></b></p> <p>4. Preparation of supplementary food for different age group and their nutritional significance. 5. Planning and preparation of low cost diet for Grade I and Grade II malnourished child.</p> <p><b><u>Practical copy checking and practical regarding discussion</u></b></p>	December	6
DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<p><b>Introduction to Food safety:</b> Definitions, types of hazard- physical, chemical and biological, factors affecting food safety.</p> <p><b>Food hazards:</b> types of hazard. Physical, Chemical hazards(naturally occurring, environmental, and intentionally added) and biological (food borne pathogens- bacteria, viruses and eukaryotes; sea food and shellfish poisoning and mycotoxins)</p>	August	8

			<b><u>Discussion of Problems</u></b>		
			<b>Management of Food Hazard:</b> Need, control of parameters, temperature control, Food storage.  <b>Hygiene and Sanitation:</b> Sources of Contamination, control methods using physical and chemical agents, Waste disposal, pest and rodent control, Personnel hygiene. <b><u>Discussion of Problems</u></b>	September	8
			<b>Food Safety Management Tools:</b> Basic concept, prerequisites- GHPs, GMPs, HACCP, ISO Series, TQM – Concept and need for quality, Components of TQM. Risk Analysis.  <b>Food Laws and Standards:</b> International Food Standards-ISO and CODEX Alimentarius. National Food Standards ( BIS, AGMARK) and Food laws (PFA and FSSAI). <b><u>Discussion of Problems</u></b>	November	8
DSE	FNTA-DSE-B5-1P	FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	Discussion of problems and lessons taught &	December	4

			<b><u>Preparation of project on the covered topics</u></b>		
DSE	FNTA-DSE-A-5-1-P	PUBLIC HEALTH (PRACTICAL)	Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.	July	4
			<b><i>Continuation of Practical</i></b>	August	4
			<b><i>Continuation of Practical</i></b>	September	4
DSE	FNTA-DSE-A-1-P	FNTA-DSE-A1P: PUBLIC HEALTH (PRACTICAL)	Field visit( health Centre, immunization Centre, ICDS, MCH Centre, NGOs etc.)	November	4
CC	FNTA-CC-11-P	DIET THERAPY-II (PRACTICAL)	Planning and preparation of Diets for the following diseases: Atherosclerosis Acute and glomerulonephritis	December	4

**Session: 2021-2022**  
**(Even Semester) 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>**

Course type (CC/ GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-CC3Th	BASIC FOOD SCIENCE-II (Theory)	<b>Water Soluble Vitamins</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements,	March	6

			sources, deficiency & excess.		
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	April	6
CC	FNTA-CC-1-Th	BASIC FOOD SCIENCE (Theory)	<b>Water Soluble Vitamins Contd.</b> Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess. & <b>Discussion of problems and lessons taught &amp; Question answer discussion of C.U previous year.</b>	May	4
SEC-B1	FNTA-SEC-B-1-Th	NUTRITION AND HEALTH EDUCATION	1. <b>Concept, objectives and importance of nutrition and health education</b> 2. Principles of health education. 3 Nutrition and health education communication process. <b><u>Discussion of Problems</u></b>	February	8
			<b>Continuation ...</b> 4 .Steps in planning health and nutrition education. 5 Methods involved in nutrition and health education 6. Evaluation of nutrition and health	March	8

			education programmes. <b><u>Discussion of Problems</u></b>		
			Continued with previous chapter.  Discussion of problems and lessons taught. Discussion of previous year CU questions.  Class test on covered topics.	April	6
			Discussion of problems and lessons taught. Discussion of previous year CU questions.  Class test on covered topics.	May	4
CC	FNTA-CC-8-P	HUMAN NUTRITION-II (PRACTICAL)	Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions: infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	April	8
			<b><u>Continuation of Practical</u></b>  Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions: infants, pre-schooler, school	May	8

			children, adolescents, adults, pregnancy, lactation and old age.		
			<p><b><u>Continuation of Practical, Practical copy checking and discussion regarding practical</u></b></p> <p><b>Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions:</b> infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.</p>	June	6
			<p><b>Discussion of problems and lessons taught &amp; previous year CU questions Solving. Class test on covered topics.</b></p>	April	8
DSE-B	FNTA-DSE-B6-3-Th	FOOD FERMENTATION (Theory)	<p>5. Production of Baker's yeast.</p> <p>6. Production and nutritional significance of fermented milk products and vinegar.</p> <p>7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi.</p> <p>Nutritional Significance of the above products.</p>	March	8

			<b><u>Discussion of Problems</u></b>		
DSE-B	FNTA-DSE-B6-3-Th	FOOD FERMENTATION (Theory)	<b>Continuation...</b> 5. Production of Baker's yeast. 6. Production and nutritional significance of fermented milk products and vinegar. 7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi. Nutritional Significance of the above products.  <b><u>Discussion of Problems</u></b>	April	8
			<b>Continuation...</b>  7. Development of a fermented soya products- Tofu, natto, miso, tempeh, soy sauce and vegetable products- Sauerkraut and kimchi. Nutritional Significance of the above products.  <b><u>Discussion of Problems &amp; CU previous year questions</u></b>	May	4
DSE-B	FNTA-DSE-B6-3P	FOOD FERMENTATION (Practical)	<b>2. Preparation of fermented foods-Dahi &amp; Yogurt.</b>  <b>3. Preparation of fermented vegetable pickles- Sauerkraut,</b>	April	4

			Cucumber Pickles & cucumber Kimchi		
			<b><u>Practical regarding discussions &amp; practical copy checking</u></b>	May	2



## Teaching Plan

Department: Food and Nutrition

Name of the Faculty : Madhumanti Goswami

Session: 2018-2019 (Odd Semester) CBCS (SEM-1), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)

Course type (CC/ GE/SEC / AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A- CC-1-2- Th	HUMAN PHYSIOLOGY -I ( Theory)	1. Respiratory System: Structure of lungs, gaseous exchange Machanism of respiration, Acclimatization, Terminologies, O <sub>2</sub> and CO <sub>2</sub> transport Artificial respiration.  2. Discussion on previous year cu question papers	August	5
CC	FNT-A- CC-1-1- Th:	BASIC FOOD SCIENCE	Lipids -Definition, Classification & Properties. Fatty acids- composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA,	August          Septembe r	4          5

			<p>W-3 fatty acid.</p> <p>Discussion on CU questions of previous years</p>		
--	--	--	--	--	--

Hons	III	UNIT-1, Module-9 Community Nutrition Theory & practical	1. Concept of Community, types of Community, Factors affecting health of the Community.	September	3
			6. Use of growth chart. National Profilaxis programmes, Mid day meal, SNP, ANP, Composite nutrition program, Balahar etc. Food Fortification programme.	November	6
			Community visit- ICDS	January	3
			4. Food security  Discussion on CU questions of previous years	December	4
Hons	III	UNIT – II MODULE – 10 PUBLIC HEALTH ( Theory)	Community Water and Waste Management : Importance of water to the community, etiology and effects of toxic agents, water borne infectious agents, sources of water, safe drinking water, potable water, waste and waste disposal, sewage disposal and treatment, solid	December	10

			waste and disposal, liquidwaste disposal.		
--	--	--	--	--	--

			Discussion on questions of test examination and CU questions of previous years.	January	2
Hons	IV	UNIT – I MODULE– 12 FOOD COMMODITIES(A )	1.Meat, Fish and Poultry: Classification of Fish, composition and nutritive value of Fish, Spoilage and Selection of Fish, Storage and Preservation of Fish,FPC, Fish Meal. Classification and preservation of Poultry.  Discussion on lesson taught	September	6
		MODULE– 13 FOOD COMMODITIES (B )	1. Sugar and sugarProducts : Types of natural sweeteners, manufacture, selection, storage and use as preserves, stages in sugar cookery  6. Salt : Types and uses.  5. Convenience Foods : Role, types, advantages, uses, cost and contribution to	January  February  March	4  4  3

			diet.		
			Discussion on lesson taught		

**Session: 2018-2019 (Even Semester) CBCS (Sem 2), 1+1+1 (2<sup>nd</sup> year, 3<sup>rd</sup> year)**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	FNT-A-CC-2-3-Th I	BASIC FOOD SCIENCE-II	Dietary Fibre- Classification, sources, composition, properties & nutritional significance	January	6
			Water - Functions, daily requirements, Water balance	February	5
			Discussions on CU question papers of previous year	March	3

**Session: 2019-2020 (Odd Semester) CBCS (Sem 1, Sem 3), 1+1+1 (3<sup>rd</sup> year)**

( Maternity leave from September to Decemeber)

**Session : 2019-2020 (Even Semester) CBCS (Sem 2, Sem 4), 1+1+1 (3<sup>rd</sup> year)**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	FNT-A-CC-2-3-Th	BASIC FOOD SCIENCE-II	1. Dietary Fibre- Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.	January	10
CC	FNT-A-CC-2-4-Th	HUMAN PHYSIOLOGY-II	4. Endocrine system: Structure and functions of pituitary, thyroid, parathyroid and adrenal gland, Structure and functions of pancreas	March  April	8  2
Hons Paper-VI	Unit-I Module 20	DIET THERAPY- (A1)	1. Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets.  2. Team approach to health care. Assessment of Patient's needs. Syndrome.	January	5
			3. Routine Hospital Diets: Regular, light, soft, fluid, parenteral and	January	5

			enteral feeding.		
	<b>Unit-I Module 21</b>	<b>DIET THERAPY- (A2)</b>	2.Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea,	February	8
			Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel	March	6
<b>CC</b>	<b>FNT-A-CC-4-8-Th:</b>	<b>HUMAN NUTRITION-II</b>	<p>3. Nutrition during Infancy: Infant physiology relevant to feeding and care, Breast feedingcolostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding.</p> <p>Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding- circumstances under which bottle feeding is to be given. Care &amp; sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial</p>	<p>january</p> <p>February</p>	<p>8</p> <p>10</p>



			feeding		
			4. Management of preterm and low birth weight babies		
			1.Nutrition during Lactation:Nutritional requirements during lactation, dietary management, food supplements, galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding	march	8
				april	8
				may	8

**Session: 2020-2021 (Odd Semester) CBCS SEM-1, 3, 5**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
<b>CC</b>	<b>FNTA-CC-1-Th</b>	<b>BASIC FOOD SCIENCE (Theory)</b>	<b>Lipids –</b> Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid	August	8
			Discussion of problems and lessons taught. Discussion on previous year CU questions	September	4
<b>CC</b>	<b>FNTA-CC-5-Th</b>	<b>HUMAN NUTRITION -I (Theory)</b>	<b>Growth &amp; Development from infancy to adulthood:</b> Somatic, physical, brain and mental development,	July	6

			puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development	August	6
			Discussion of problems and lessons taught & previous year CU questions solving	September	6
CC	FNTA-CC-5- P	<b>HUMAN NUTRITION -I (Practical)</b>	1.Process involved in cooking: pressure cooking, microwave ,steaming, grilling ,deep fat frying. 2. General concepts of weights and measures. Eye estimation of raw and cooked foods 3. Preparation of food from different food groups and their significance in relation to health.	November	8

CC	FNTA-CC-11-P	DIET THERAPY-II (PRACTICAL)	Planning and preparation of Diets for the following diseases: i) Obesity and Underweight ii) Diabetes mellitus iii) Hypertension and Atherosclerosis iv) Acute and chronic glomerulonephritis.	November	8
				December	6
DSE	FNTA-DSE-B5-1Th	FOOD SAFETY AND QUALITY CONTROL (Theory)	<b>Introduction to Food safety:</b> Definitions, types of hazard- physical, chemical and biological, factors affecting food safety. <b>Food hazards:</b> types of hazard. Physical, Chemical hazards(naturally occurring, environmental, and intentionally added) and biological (food borne pathogens- bacteria, viruses and eukaryotes; sea food and shellfish poisoning and mycotoxins)	September	8

			Discussion of Problems		
<b>DSE</b>	<b>FNTA-DSE- B5-1-Th</b>	<b>FOOD SAFETY AND QUALITY CONTROL (Theory)</b>	<b>Food Safety Management Tools:</b> Basic concept, prerequisites- GHPs, GMPs, HACCP, ISO Series, TQM – Concept and need for quality, Components of TQM. Risk Analysis.  <b>Food Laws and Standards:</b> International Food Standards-ISO and CODEX Alimentarius. National Food Standards ( BIS, AGMARK) and Food laws (PFA and FSSAI).	December	6
<b>DSE</b>	<b>FNTA-DSE- B5-1-Th</b>	<b>FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)</b>	Discussion of problems and lessons taught & Preparation of project on the covered topics	January	4
<b>DSE</b>	<b>FNTA-DSE- B5-1-P</b>	<b>FOOD SAFETY AND QUALITY CONTROL PRACTICAL</b>	Preparation of project on the covered topics.	February	4

SEC	FNTA- SEC- A1Th	SPORTS NUTRITI ON (Theory)	1. Definition of physical activity, exercise, physical fitness, sports physiology and sports nutrition. 2. Benefits of physical activity and exercise.	August	8
			3. Classification of Sports activities. 4. Nutritional requirements of sports person. 5. Pre- event meal	September	8
			Nutritional Requirements of Sports person, Fluid & electrolytes for Athletes, Isotonic, Hypo & Hypertonic beverages.	November	6

**Session: 2020-2021 (Even Semester) CBCS SEM-2, 4, 6**

[illegible]

			guidelines for elderly . 5. Major nutritional and health problems during old age.		
--	--	--	---	--	--



<b>CC</b>	<b>FNTA- CC- 8- Th</b>	<b>HUMAN NUTRITION- II (Theory)</b>	<b>Nutrition during Infancy:</b> Infant physiology relevant to feeding and care, Breast feeding Colostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding. Basic principles of breast feeding.	February	10
<b>CC</b>	<b>FNTA- CC- 8- Th</b>	<b>HUMAN NUTRITION- II (Theory)</b>	<b>Nutrition during Infancy</b> Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding- circumstances under which bottle feeding is to be given. Care & sterilization of bottles. Preparation of formula. Mixed feeding, breast feeding and artificial feeding. Management of preterm and low birth weight babies.	March	10

<b>CC</b>	<b>FNTA - CC8P</b>	<b>HUMAN NUTRITION- II PRACTICAL</b>	Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions: infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	April	8
			Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions: infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	May	8
<b>CC</b>	<b>FNTA- CC- 9- Th</b>	<b>DIET THERAPY- I (Theory)</b>	management of intestinal diseases: Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel Syndrome.	May	8

SEC	FNTA- SEC- B1Th	<b>NUTRITION AND HEALTH EDUCATIO N (Theory)</b>	<b>1. Concept, objectives and importance of nutrition and health education</b> 5. Methods involved in nutrition and health education 6. Evaluation of nutrition and health education programmes._ Discussion of Problems	March	8
			Discussion of problems and lessons taught & previous	April	6

<b>DSE</b>	<b>FNTA-DSE-B6-3Th</b>	<b>FOOD FERMENTATION (Theory)</b>	<p>1. fermentation definition, advantages limitation.</p> <p>6. Production and nutritional significance of fermented milk products and vinegar.</p>	March	8
<b>DSE</b>	<b>FNTA-DSE-B6-3Th</b>	<b>FOOD FERMENTATION (Theory)</b>	<p>4. Development of a fermented soya starter culture.</p> <p>3. Milk fermentative products Nutritional Significance of the above products.</p> <p>Discussion of Problems</p>	April	8

<b>DSE</b>	<b>FNTA-DSE-B6-3-P</b>	<b>FOOD FERMENTATION (Practical)</b>	<p>1. Demonstration of hygienic handling of equipment and utensils during food fermentation process.</p> <p>2.Preparation of fermented food-Dahi and Yogurt</p> <p>2. Preparation of fermented vegetable pickles.</p> <p>3. Preparation of different food items from fermented products.</p>	April	10
<b>CC</b>	<b>FNT-A-CC-6-13-Th</b>	<b>FOOD MICROBIOLOGY (theory)</b>	<p>2. Cultivation of microorganisms, Nutritional requirements of microorganisms, types of media used, methods of isolation.</p> <p>3. Primary sources of microorganisms in foods, physical and chemical methods used in the destruction of microorganism in foods: (Sterilisation &amp; Disinfection).</p> <p>4. Fundamentals of control of microorganism in foods: Extrinsic and intrinsic parameters affecting growth and survival of microbes, use of high and low temperature, dehydration, freezing, freeze-drying, irradiation and preservatives in food preservation.</p>	<p>February</p> <p>March</p> <p>April</p>	<p>8</p> <p>8</p> <p>3</p>

leave From May 2022-April 2023

**Session: 2022-2023 (Even Semester) CBCS SEM-2, 4, 6**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	FNTA-DSE-B-6-3-TH	FOOD FERMENTATION	Food Fermentation: Factors affecting Fermentation process Discussion of problems and lessons taught & previous year CU questions solving	May	8
CC	FNTA-CC-2-3Th	BASIC FOOD SCIENCE (Theory)	1. Dietary Fibre-Classification, sources, composition, properties & nutritional significance.  5. Water - Functions, daily requirements, Water balance.  6.Minerals -iron and iodine	May  june	4  4
cc	FNT-A-CC-6-13-P:	Food Microbiology (practical)	1. Introduction to microbiology: Use of equipment Understanding and use of compound microscope Use of Autoclave Use of Incubator and Inoculation chamber 2. Microscopic identification of microorganisms (prepared slides) : Bacterial, fungal strains 3. Preparation of liquid and solid media for culture of microorganisms.	May  June	8  6

			<p>4. Staining Techniques to study of Morphology of bacterial cells: Simple staining with methylene blue, methyl violet, carbolfuscin, etc. Differential staining with Gram stain technique</p> <p>5. Microbiological techniques: Pure culture technique- Spread plate, Pour plate and Streak plate.</p>		
SEC	FNTA-SEC-B1Th	NUTRITION AND HEALTH EDUCATION (Theory)	<p>1. Concept, objectives and importance of nutrition and health education</p> <p>5. Methods involved in nutrition and health education</p> <p>6. Evaluation of nutrition and health education programmes._</p> <p>Discussion of Problems</p>	may	4
			Discussion of problems and lessons taught & previous	june	4



















## Teaching Plan

**Department: Food And Nutrition**

**Name of Teacher: Debasmita Chatterjee**

**Session: 2018-2019 (Odd Semester) CBCS (SEM-1), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-1-1-TH	Basic Food Science I (TH)	<b><u>Basic concept</u></b> - Food, nutrition and nutrients. Classification of food and nutrients.	July	2
			<b><u>Carbohydrates</u></b> - Definition, Classification, Structure and properties. <b><u>Monosaccharides</u></b> - glucose, fructose, galactose. Their structure, function, properties and general reactions. Disaccharides - Maltose, lactose, sucrose. Their structure, function, properties, use, chemical name	August	8
			<b><u>Carbohydrates (contd.)</u></b> - Polysaccharides - Dextrin, starch, glycogen, resistant starch. Their structure, function, properties, uses. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health.	September	6
			<b><u>Carbohydrates (contd.)</u></b> - Digestion and absorption of carbohydrate.	November	2
	FNT-A-CC-1-1-PR	Basic Food Science I (PR)	Identification of Mono, Di and polysaccharides Identification of Proteins Identification of glycerol.	November	6
HONS.	Paper-V	Nutritional Biochemistry – A (Unit-I, Module – 16 )	<b><u>Enzymes</u></b> : Definition, types and classification of enzymes, definition And types of coenzymes. Specificity of enzymes.	July	7
			<b><u>Enzymes (contd.)</u></b> : Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions.	August	10



			<b><u>Enzymes (contd.):</u></b> Enzyme inhibition. <b><u>Proteins:</u></b> General reaction of amino acid metabolism, urea cycle. Lipoproteins : Types, composition, role and significance in disease (in brief)	September	8
		Nutritional Biochemistry –B (Unit-I, Module – 17 )	<b><u>Vitamins:</u></b> Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B <sub>1</sub> , B <sub>2</sub> , B <sub>6</sub> Niacin and C. <b><u>Minerals:</u></b> Biochemical role of inorganic elements.	November	10
			<b><u>Nucleic acids:</u></b> Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.	December	10

**Session: 2018-2019 (Even Semester) CBCS (SEM-2), 1+1+1(2<sup>nd</sup> and 3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
HONS.	Paper-V	Nutritional Biochemistry	Question answer discussion	January	6
			Question answer discussion	February	3
CC	FNT-A-CC-2-3-TH	Basic Food Science II - TH	<b><u>Minerals &amp; Trace Elements:</u></b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Sodium, Potassium)	March	4
			<b><u>Minerals &amp; Trace Elements (contd.):</u></b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Phosphorus, Fluoride, Zinc, Selenium, Chromium).	April	8
	FNT-A-CC-2-3-PR	Basic Food Science II - PR	Determination of calcium and vitamin C in food sample.	May	6

**Session: 2019-2020 (Odd Semester) CBCS (SEM-1 and SEM-3), 1+1+1(3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-1-1-TH	Basic Food Science I (TH)	<b><u>Basic concept</u></b> - Food, nutrition and nutrients. Classification of food and nutrients.	July	2
			<b><u>Carbohydrates</u></b> - Definition, Classification, Structure and properties. <b><u>Monosaccharides</u></b> - glucose, fructose, galactose. Their structure, function, properties and general reactions. Disaccharides - Maltose, lactose, sucrose. Their structure, function, properties, use, chemical name	August	8
			<b><u>Carbohydrates (contd.)-</u></b> Polysaccharides - Dextrin, starch, glycogen, resistant starch. Their structure, function, properties, uses. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health.	September	6
			<b><u>Carbohydrates (contd.)-</u></b> Digestion and absorption of carbohydrate.	November	2
	FNT-A-CC-1-1-PR	Basic Food Science I (PR)	Identification of Mono, Di and polysaccharides Identification of Proteins Identification of glycerol.	November	6
HONS.	Paper-V	Nutritional Biochemistry – A (Unit-I, Module – 16 )	<b><u>Enzymes</u></b> : Definition, types and classification of enzymes, definition and types of coenzymes. specificity of enzymes.	July	7
			<b><u>Enzymes (contd.)</u></b> : Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalyzed reactions.	August	10
			<b><u>Enzymes (contd.)</u></b> : Enzyme inhibition. <b><u>Proteins</u></b> : General reaction of amino acid metabolism, urea cycle. Lipoproteins : Types, composition, role and significance in disease (in brief)	September	8

		Nutritional Biochemistry –B (Unit-I, Module – 17 )	<b>Vitamins:</b> Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B <sub>1</sub> , B <sub>2</sub> , B <sub>6</sub> Niacin and C. <b>Minerals:</b> Biochemical role of inorganic elements.	November	10
			<b>Nucleic acids:</b> Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.	December	10

**Session: 2019-2020 (Even Semester) CBCS (SEM-2 and SEM-4), 1+1+1(3<sup>rd</sup> Year)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
HONS.	Paper-VII	Nutritional Biochemistry Practical (Module – 25 )	Estimation of Serum Protein, Inorganic phosphate and Creatinine	January	6
		Nutritional Biochemistry Practical (Module – 24 )	Determination of Acid Value of Oil	February	3
CC	FNT-A-CC-4-10-TH	Nutritional Biochemistry – 1	<b>Enzymes:</b> Definition, types and classification of enzymes, definition and types of coenzymes, Functions of coenzymes and cofactors, Specificity of enzymes, Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions	February	8
			<b>Enzymes (contd.):</b> Regulations of enzyme activity, zymogen, allosteric enzymes, enzyme inhibition. <b>Lipids:</b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated)	March	12

			<b><i>Lipids (contd.):</i></b> Synthesis and utilization of ketone bodies, Ketosis, fatty livers, Essential Fatty acids, Cholesterol and its clinical significance.	April	12
		Nutritional Biochemistry – 1 Practical	<b><i>Practical Explanation, Demonstration</i></b> Quantitative estimation of Sugars (Glucose, lactose, starch). Estimation of acid value, iodine value, Saponification value of fats. Estimation of blood Glucose. Estimation of serum cholesterol.	May	10
CC	FNT-A-CC-2-3-TH	Basic Food Science II - TH	<b><i>Minerals &amp; Trace Elements:</i></b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Sodium, Potassium)	March	8
			<b><i>Minerals &amp; Trace Elements (contd.):</i></b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Phosphorus, Fluoride, Zinc, Selenium, Chromium).	April	10
	FNT-A-CC-2-3-PR	Basic Food Science II - PR	<b><i>Practical Explanation, Demonstration</i></b> Determination of calcium, iron and vitamin C in food sample.	May	8

**Session: 2020-2021 (Odd Semester) CBCS (SEM-1,3,5)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-1-1-TH	Basic Food Science I (TH)	<b><i>Basic concept</i></b> - Food, nutrition and nutrients. Classification of food and nutrients.	July	2
			<b><i>Carbohydrates</i></b> - Definition, Classification, Structure and properties. <b><i>Monosaccharides</i></b> - glucose, fructose, galactose. Their structure, function, properties and general reactions. Disaccharides - Maltose, lactose, sucrose. Their structure, function, properties, use, chemical name	August	12

			<b><u>Carbohydrates (contd.)-</u></b> Polysaccharides - Dextrin, starch, glycogen, resistant starch. Their structure, function, properties, uses. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health.	September	12
			<b><u>Carbohydrates (contd.)-</u></b> Digestion and absorption of carbohydrate.	November	4
	FNT-A-CC-1-1-PR	Basic Food Science I (PR)	Identification of Mono, Di and polysaccharides Identification of Proteins Identification of glycerol.	November	8
CC	FNT-A-CC-3-7-PR	Food Adulteration Practical	Detection of starch, sucrose, formalin, boric acid, and urea in milk.	August	8
			Detection of urea in puffed rice. Detection of Vanaspati in Ghee/Butter. Detection of Khesari flour in besan	September	8
			Detection of Metanil yellow in turmeric/coloured sweet products. Detection of Argemone oil in edible oil. Detection of artificially colour / foreign matter in tea (dust/leaves)	November	8
CC	FNT-A-CC-5-12-TH	Nutritional Biochemistry 2 (TH)	<b><i>Proteins:</i></b> General reaction of amino acid metabolism, urea cycle. Lipoproteins: Types, composition, role and significance in disease (in brief).	July	10
			<b><i>Vitamins:</i></b> Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B1, B2, B6 niacin and C. <b><i>Minerals:</i></b> Biochemical role of inorganic elements. <b><i>Brief Introduction of biological membranes</i></b> to understand molecular transport, Transport of Large molecules, Receptor mediated endocytosis, exocytosis, Molecular aspects of Transport: Passive diffusion, facilitated diffusion, active transport.	August	24
			<b><i>Introduction to Nucleic acids:</i></b> Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.	September	24
	FNT-A-	Nutritional Biochemistry	<b><i>Practical Explanation, Demonstration</i></b> 1. Qualitative analysis of amino acids.	November	24

	CC-5-12-PR	try 2 (PR)	2. Qualitative analysis of proteins. 3. Estimation of serum Protein 4. Estimation of serum creatinine 5. Estimation of serum Urea 6. Estimation of serum Iron, phosphorus, calcium		
--	------------	------------	--	--	--

**Session: 2020-2021 (Even Semester) CBCS (SEM-2,4,6)**

<b>Course Type CC/GE/ SEC/AE CC/DSE /HONS.</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub Unit Name</b>	<b>Month</b>	<b>No. of classes</b>
CC	FNT-A-CC-6-13-TH	Food Microbiology Theory	Brief history of food microbiology and introduction to important microorganisms in foods. Cultivation of microorganisms, Nutritional requirements of microorganisms, types of media used, methods of isolation.	February	16
			Primary sources of microorganisms in foods, physical and chemical methods used in the destruction of microorganism in foods: (Sterilisation & Disinfection). Fundamentals of control of microorganism in foods: Extrinsic and intrinsic parameters affecting growth and survival of microbes, use of high and low temperature, dehydration, freezing, freeze-drying, irradiation and preservatives in food preservation.	March	25
			Food Spoilage: Contamination and microorganisms in the spoilage of different kinds of foods and such as cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and products, canned foods.	April	25
	FNT-A-CC-6-13-PR	Food Microbiology Practical	1. Introduction to microbiology: Use of equipment Understanding and use of compound microscope Use of Autoclave Use of Incubator and Inoculation chamber	May	25

			<p>2. Microscopic identification of microorganisms (prepared slides) : Bacterial, fungal strains</p> <p>3. Preparation of liquid and solid media for culture of microorganisms.</p> <p>4. Staining Techniques to study of Morphology of bacterial cells: Simple staining with methylene blue, methyl violet, carbolfuschin, etc. Differential staining with Gram stain technique</p> <p>5. Microbiological techniques: Pure culture technique-Spread plate, Pour plate and Streak plate.</p>		
--	--	--	--	--	--

CC	FNT-A-CC-4-10-TH	Nutritional Biochemistry – 1	<b>Enzymes:</b> Definition, types and classification of enzymes, definition and types of coenzymes, Functions of coenzymes and cofactors, Specificity of enzymes, Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions	February	8
			<b>Enzymes (contd.):</b> Regulations of enzyme activity, zymogen, allosteric enzymes, enzyme inhibition. <b>Lipids:</b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated)	March	12
			<b>Lipids (contd.):</b> Synthesis and utilization of ketone bodies, Ketosis, fatty livers, Essential Fatty acids, Cholesterol and its clinical significance.	April	12
		Nutritional Biochemistry – 1 Practical	<b>Practical Explanation, Demonstration</b> Quantitative estimation of Sugars (Glucose, lactose, starch). Estimation of acid value, iodine value, Saponification value of fats. Estimation of blood Glucose. Estimation of serum cholesterol.	May	10
CC	FNT-A-CC-2-3-TH	Basic Food Science II - TH	<b>Minerals &amp; Trace Elements:</b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Sodium, Potassium)	March	8

			<b><u>Minerals &amp; Trace Elements (contd.):</u></b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Phosphorus, Fluoride, Zinc, Selenium, Chromium).	April	10
	FNT-A-CC-2-3-PR	Basic Food Science II - PR	<b><u>Practical Explanation, Demonstration</u></b> Determination of calcium, iron and vitamin C in food sample.	May	8

**Session: 2021-2022 (Odd Semester) CBCS (SEM-1,3,5)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-1-1-TH	Basic Food Science I (TH)	<b><u>Basic concept</u></b> - Food, nutrition and nutrients. Classification of food and nutrients.	July	2
			<b><u>Carbohydrates</u></b> - Definition, Classification, Structure and properties. <b><u>Monosaccharides</u></b> - glucose, fructose, galactose. Their structure, function, properties and general reactions. Disaccharides - Maltose, lactose, sucrose. Their structure, function, properties, use, chemical name	August	12
			<b><u>Carbohydrates (contd.)-</u></b> Polysaccharides - Dextrin, starch, glycogen, resistant starch. Their structure, function, properties, uses. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health.	September	12
			<b><u>Carbohydrates (contd.)-</u></b> Digestion and absorption of carbohydrate.	November	4
	FNT-A-CC-1-1-PR	Basic Food Science I (PR)	Identification of Mono, Di and polysaccharides Identification of Proteins Identification of glycerol.	November	8
CC	FNT-A-	Food Adulterati	Detection of starch, sucrose, sucrose, formalin, boric acid, and urea in milk.	August	8



	CC-3-7-PR	on Practical	Detection of urea in puffed rice. Detection of Vanaspati in Ghee/Butter. Detection of Khesari flour in besan	September	8
			Detection of Metanil yellow in turmeric/coloured sweet products. Detection of Argemone oil in edible oil. Detection of artificially colour / foreign matter in tea (dust/leaves)	November	8
CC	FNT-A-CC-5-12-TH	Nutritional Biochemistry 2 (TH)	<b>Proteins:</b> General reaction of amino acid metabolism, urea cycle. Lipoproteins: Types, composition, role and significance in disease (in brief).	July	10
			<b>Vitamins:</b> Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B1, B2, B6 niacin and C. <b>Minerals:</b> Biochemical role of inorganic elements. <b>Brief Introduction of biological membranes</b> to understand molecular transport, Transport of Large molecules, Receptor mediated endocytosis, exocytosis, Molecular aspects of Transport: Passive diffusion, facilitated diffusion, active transport.	August	24
			<b>Introduction to Nucleic acids:</b> Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.	September	24
	FNT-A-CC-5-12-PR	Nutritional Biochemistry 2 (PR)	<b>Practical Explanation, Demonstration</b> 1. Qualitative analysis of amino acids. 2. Qualitative analysis of proteins. 3. Estimation of serum Protein 4. Estimation of serum creatinine 5. Estimation of serum Urea 6. Estimation of serum Iron, phosphorus, calcium	November	24

**Session: 2021-2022 (Even Semester) CBCS (SEM-2,4,6)**

<b>Course Type CC/GE/ SEC/AE CC/DSE /HONS.</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub Unit Name</b>	<b>Month</b>	<b>No. of classes</b>
CC	FNT-A-CC-6-13-TH	Food Microbiology Theory	Brief history of food microbiology and introduction to important microorganisms in foods. Cultivation of microorganisms, Nutritional requirements of microorganisms, types of media used, methods of isolation.	February	16
			Primary sources of microorganisms in foods, physical and chemical methods used in the destruction of microorganism in foods: (Sterilisation & Disinfection). Fundamentals of control of microorganism in foods: Extrinsic and intrinsic parameters affecting growth and survival of microbes, use of high and low temperature, dehydration, freezing, freeze-drying, irradiation and preservatives in food preservation.	March	25
			Food Spoilage: Contamination and microorganisms in the spoilage of different kinds of foods and such as cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and products, canned foods.	April	25
	FNT-A-CC-6-13-PR	Food Microbiology Practical	1.Introduction to microbiology: Use of equipment Understanding and use of compound microscope Use of Autoclave Use of Incubator and Inoculation chamber 2. Microscopic identification of microorganisms (prepared slides) : Bacterial, fungal strains 3. Preparation of liquid and solid media for culture of microorganisms. 4. Staining Techniques to study of Morphology of bacterial cells: Simple staining with methylene blue, methyl violet, carbolfuschin, etc.	May	25

			Differential staining with Gram stain technique 5. Microbiological techniques: Pure culture technique-Spread plate, Pour plate and Streak plate.		
--	--	--	---	--	--

CC	FNT-A-CC-4-10-TH	Nutritional Biochemistry – 1	<b>Enzymes:</b> Definition, types and classification of enzymes, definition and types of coenzymes, Functions of coenzymes and cofactors, Specificity of enzymes, Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions	February	8
			<b>Enzymes (contd.):</b> Regulations of enzyme activity, zymogen, allosteric enzymes, enzyme inhibition. <b>Lipids:</b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated)	March	12
			<b>Lipids (contd.):</b> Synthesis and utilization of ketone bodies, Ketosis, fatty livers, Essential Fatty acids, Cholesterol and its clinical significance.	April	12
		Nutritional Biochemistry – 1 Practical	<b>Practical Explanation, Demonstration</b> Quantitative estimation of Sugars (Glucose, lactose, starch). Estimation of acid value, iodine value, Saponification value of fats. Estimation of blood Glucose. Estimation of serum cholesterol.	May	10
CC	FNT-A-CC-2-3-TH	Basic Food Science II - TH	<b>Minerals &amp; Trace Elements:</b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Sodium, Potassium)	March	8
			<b>Minerals &amp; Trace Elements (contd.):</b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Phosphorus, Fluoride, Zinc, Selenium, Chromium).	April	10
	FNT-A-CC-2-3-PR	Basic Food Science II - PR	<b>Practical Explanation, Demonstration</b> Determination of calcium, iron and vitamin C in food sample.	May	8

**Session: 2022-2023 (Odd Semester) CBCS (SEM-1,3,5)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-1-1-TH	Basic Food Science I (TH)	<b><u>Basic concept</u></b> - Food, nutrition and nutrients. Classification of food and nutrients.	July	2
			<b><u>Carbohydrates</u></b> - Definition, Classification, Structure and properties. <b><u>Monosaccharides</u></b> - glucose, fructose, galactose. Their structure, function, properties and general reactions. Disaccharides - Maltose, lactose, sucrose. Their structure, function, properties, use, chemical name	August	12
			<b><u>Carbohydrates (contd.)-</u></b> Polysaccharides - Dextrin, starch, glycogen, resistant starch. Their structure, function, properties, uses. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health.	September	12
			<b><u>Carbohydrates (contd.)-</u></b> Digestion and absorption of carbohydrate.	November	4
	FNT-A-CC-1-1-PR	Basic Food Science I (PR)	Identification of Mono, Di and polysaccharides Identification of Proteins Identification of glycerol.	November	8
CC	FNT-A-CC-3-7-PR	Food Adulteration Practical	Detection of starch, sucrose, formalin, boric acid, and urea in milk.	August	8
			Detection of urea in puffed rice. Detection of Vanaspati in Ghee/Butter. Detection of Khesari flour in besan	September	8
			Detection of Metanil yellow in turmeric/coloured sweet products. Detection of Argemone oil in edible oil. Detection of artificially colour / foreign matter in tea (dust/leaves)	November	8
CC	FNT-A-CC-5-12-	Nutritional Biochemistry 2 (TH)	<b><u>Proteins:</u></b> General reaction of amino acid metabolism, urea cycle. Lipoproteins: Types, composition, role and significance in disease(in brief).	July	10

	TH		<p><b>Vitamins:</b> Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B1, B2, B6 niacin and C.</p> <p><b>Minerals:</b> Biochemical role of inorganic elements.</p> <p><b>Brief Introduction of biological membranes</b> to understand molecular transport, Transport of Large molecules, Receptor mediated endocytosis, exocytosis, Molecular aspects of Transport: Passive diffusion, facilitated diffusion, active transport.</p>	August	24
			<p><b>Introduction to Nucleic acids:</b> Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.</p>	September	24
	FNT-A-CC-5-12-PR	Nutritional Biochemistry 2 (PR)	<p><b>Practical Explanation, Demonstration</b></p> <ol style="list-style-type: none"> <li>1. Qualitative analysis of amino acids.</li> <li>2. Qualitative analysis of proteins.</li> <li>3. Estimation of serum Protein</li> <li>4. Estimation of serum creatinine</li> <li>5. Estimation of serum Urea</li> <li>6. Estimation of serum Iron, phosphorus, calcium</li> </ol>	November	24

**Session: 2022-2023 (Even Semester) CBCS (SEM-2,4,6)**

Course Type CC/GE/ SEC/AE CC/DSE /HONS.	Paper	Unit Name	Sub Unit Name	Month	No. of classes
CC	FNT-A-CC-6-13-TH	Food Microbiology Theory	Brief history of food microbiology and introduction to important microorganisms in foods. Cultivation of microorganisms, Nutritional requirements of microorganisms, types of media used, methods of isolation.	February	16

			<p>Primary sources of microorganisms in foods, physical and chemical methods used in the destruction of microorganism in foods: (Sterilisation &amp; Disinfection).</p> <p>Fundamentals of control of microorganism in foods: Extrinsic and intrinsic parameters affecting growth and survival of microbes, use of high and low temperature, dehydration, freezing, freeze-drying, irradiation and preservatives in food preservation.</p>	March	25
			<p>Food Spoilage: Contamination and microorganisms in the spoilage of different kinds of foods and such as cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and products, canned foods.</p>	April	25
	FNT-A-CC-6-13-PR	Food Microbiology Practical	<p>1.Introduction to microbiology:            Use of equipment            Understanding and use of compound microscope            Use of Autoclave            Use of Incubator and Inoculation chamber            2. Microscopic identification of microorganisms (prepared slides) :            Bacterial, fungal strains            3. Preparation of liquid and solid media for culture of microorganisms.            4. Staining Techniques to study of Morphology of bacterial cells:            Simple staining with methylene blue, methyl violet, carbolfuschin, etc.            Differential staining with Gram stain technique            5. Microbiological techniques: Pure culture technique-Spread plate, Pour plate and Streak plate.</p>	May	25

CC	FNT-A-CC-4-10-TH	Nutritional Biochemistry – 1	<b>Enzymes:</b> Definition, types and classification of enzymes, definition and types of coenzymes, Functions of coenzymes and cofactors, Specificity of enzymes, Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions	February	8
			<b>Enzymes (contd.):</b> Regulations of enzyme activity, zymogen, allosteric enzymes, enzyme inhibition. <b>Lipids:</b> Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated)	March	12
			<b>Lipids (contd.):</b> Synthesis and utilization of ketone bodies, Ketosis, fatty livers, Essential Fatty acids, Cholesterol and its clinical significance.	April	12
		Nutritional Biochemistry – 1 Practical	<b>Practical Explanation, Demonstration</b> Quantitative estimation of Sugars (Glucose, lactose, starch). Estimation of acid value, iodine value, Saponification value of fats. Estimation of blood Glucose. Estimation of serum cholesterol.	May	10
CC	FNT-A-CC-2-3-TH	Basic Food Science II - TH	<b>Minerals &amp; Trace Elements:</b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Sodium, Potassium)	March	8
			<b>Minerals &amp; Trace Elements (contd.):</b> Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Phosphorus, Fluoride, Zinc, Selenium, Chromium).	April	10
	FNT-A-CC-2-3-PR	Basic Food Science II - PR	<b>Practical Explanation, Demonstration</b> Determination of calcium, iron and vitamin C in food sample.	May	8

## Teaching Plan

**Department: Food and Nutrition**

**Name of the teacher: Dr. Swati Banerjee**

**Session: 2018-2019 (Odd Semester)**

**CBCS (Sem 1), 1+1+1 (2nd year, 3rd year)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT- A-CC- 1-1- TH	Basic food scienceI ( Theory)	Proteins- Effect of too high – too low proteins on health. Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio- availability including anti- nutritional factors. lesson taught and Discussion	August	8
CC	FNT- A-CC- 1-2- Th	HUMAN PHYSIOLOGY-I ( Theory)	Musculoskeletal System: Formation and functions of muscles. Lesson taught	September	8
			Musculoskeletal System : ( Contd):- Mechanism of muscle contraction, isometric and	November	8



			isotonic muscle contraction. Formation and functions of bones. Lesson taught and Assignment on the covered topics		
			Discussion on CU questions of previous years	December	4
CC	FNT-A-CC-1-1-P:	FOOD SCIENCE I (PRACTICAL)	Practical: Identification of Mono, Di and polysaccharides practical demonstration and explanation of reactions	August	8
			Practical (Contd):- Identification of Proteins, Demonstration and explanation of reactions. Identification of glycerol.	September	8
			Discussion and practice of practical demonstration explained.	November	4
Hons	III	UNIT – I MODULE – 9 COMMUNITY NUTRITION (Theory)	Diet survey : Need and importance, methods of dietary survey, Interpretation – concept of consumption unit, individual and total distribution of food in family, adequacy of diet in respect to RDA, concept of family	August	8

			food security. Lesson taught		
<b>Hons</b>	<b>III</b>	<b>UNIT – II MODULE – 10 PUBLIC HEALTH ( Theory)</b>	Health and Dimension of Health : Positive health Versus absence of disease.	August	10
			Community Water and Waste Management : Importance of water to the community, etiology and effects of toxic agents, water borne infectious agents, sources of water, safe drinking water, potable water, waste and waste disposal, sewage disposal and treatment, solid waste and disposal, liquid waste disposal.	September	10
<b>Hons</b>	<b>III</b>	<b>Module 11 Epidemiology ( Theory)</b>	Concept of Epidemiology : Study of the epidemiologic approach- determinants of disease preventive & social means, vital statistics and their significance.	November	10
			Concept of Epidemiology: Communicable and infective disease control: Nature of communicable and infectious	December	8

			diseases, infection, contamination, disinfections, decontamination, transmission direct & indirect, vector borne disease infecting organisms and positive agents, environmental agents and epidemiological principles of disease control.		
			Community Food Protection: Epidemiology of food borne disease-modes of transmission, control measures and prevention.	January	4
			Discussion on questions of test examination and CU questions of previous years.	February	3
<b>Hons</b>	<b>IV</b>	<b>UNIT – I MODULE – 12 FOOD COMMODITIES(A) Theory</b>	Milk and Milk products : Composition, Classification, Selection Quality and Cost, Processing, Storage and uses in different preparations, Nutritional aspects, shelf life and spoilage. Discussion on lesson taught	August	6
			Sugar and sugar Products : Types of natural	September	6

			sweeteners, manufacture, Fats and oils : Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects. Discussion on lesson taught		
			Beverages : Tea; Coffee. Chocolate and Cocoa Powder- Processing, cost and nutritional aspects, other beverages- Aerated beverages, juices. Discussion lesson taught	November	6
			Preserved Products : Jams, Jellies, Pickles, Squashes, Syrupstypes, composition and manufacture, selection, cost, storage, uses and nutritional aspects. Food Standards : ISI, Agmark, FPO, MPO, PFA.	December	6
			Discussion on CU questions of previous years.	January	3
<b>Hons</b>	<b>III</b>	<b>Unit -II MODULE-15 PROJECT FORMULATION (PRACTICAL)</b>	Project formulation and presentation of project in a seminar (specially	August	2

			on the market survey of food commodities).		
			Market Survey practical Contd	September	2
			Contd Market Survey practical	November	4
			Preparation of project presentation	December	4
			Contd preparation of project presentation	January	4
			Checking of final project	February	2
<b>Hons</b>	<b>VI</b>	<b>UNIT – I MODULE – 20 DIET THERAPY- (A1) Theory</b>	Diseases of the liver, Exocrine Pancreas and Biliary System. Liver function tests and nutritional care in liver disease in the context of results. Dietary care and management in – Viral Hepatitis, Cirrhosis of liver,	August	4
			Dietary care and management in diseases of Gall Bladder and pancreas- Cholelithiasis, Cholecystitis. Cholecystectomy,	September	4
			Anaemias: Pathogenesis and dietary management: Nutritional Anaemias, thalassemia, resulting from Acute Haemorrhage.	November	4

			Discussion on lesson taught		
			Discussion on CU questions of previous years.	December	2
			Discussion on questions of test examination	January	2

**Session: 2018-2019 (Even Semester)**

**CBCS (Sem 2), 1+1+1 (2<sup>nd</sup> year, 3<sup>rd</sup> year)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>Hons</b>	<b>III</b>	<b>Unit II Module 11 Epidemiology ( Theory)</b>	Community Food Protection: Epidemiology of food borne disease-modes of transmission, control measures and prevention.	January	4
			Discussion on questions of test examination and CU questions of previous years.	February	2
<b>Hons</b>	<b>IV</b>	<b>UNIT – I MODULE – 12 FOOD COMMODITIES(A) ( Theory)</b>	Discussion on CU questions of previous years.	January	3
<b>Hons</b>	<b>III</b>	<b>Unit -II MODULE-15 PROJECT FORMULATION (PRACTICAL)</b>	Contd ( practical):- preparation of project	January	4

			presentation		
			Contd: ( practical)- Checking of final project	February	2
<b>Hons</b>	<b>VI</b>	<b>UNIT – I MODULE – 20 DIET THERAPY- (A1) Theory</b>	Discussion on questions of test examination	January	2
<b>CC</b>	<b>FNT-A- CC-2-3- Th</b>	<b>BASIC FOOD SCIENCE-II Theory</b>	Vitamins – Bio- Chemical and Physiological Role Physiological role, bio- availability and requirements, sources, deficiency & excess.	January	8
			Contd ( Theory) Vitamin	February	8
			Contd ( Theory) Vitamin Discussion on lesson taught	March	8
			Water – Functions, daily requirements, Water balance.	April	8
			Discussion on CU questions of previous years.	May	4
<b>CC</b>	<b>FNT-A- CC-2-3- P:</b>	<b>BASIC FOOD SCIENCE-II (Practical)</b>	Determination of Ash content in food and Determination of Moisture	January	8

			content in food Demonstration and explanation of practical		
			Determination of calcium, iron, and Vitamin C content in foods.	February	8
			Discussion and practice of practical explained work	March	6
			Checking of practical copy and practice of practical work	April	4
			Assignment on practical work demonstrated in the class	May	2

**Session: 2019-2020 (Odd Semester)**

**CBCS (Sem 1, Sem 3), 1+1+1 (3rd year)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>CC</b>	<b>FNT- A-CC- 1-1- TH</b>	<b>Basic food science ( Theory)</b>	Proteins- Definition, Classification, Structure & properties. Amino acids	July	8



			Classification, types, functions.		
			Proteins Contd: Proteins - Sources, daily requirements, functions. Effect of too high - too low proteins on health. Digestion & absorption	August	8
			Protein Contd: Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio-availability including anti-nutritional factors.	September	8
			Discussion and class test on the lesson taught	November	4
			Discussion on CU questions of previous years.	December	2
<b>CC</b>	<b>FNT-A-CC-1-1-P:</b>	<b>FOOD SCIENCE (PRACTICAL)</b>	Practical: Identification of Mono, Di and polysaccharides practical demonstration and explanation of reactions	July	8
			Practical (Contd):- Identification of Proteins, Demonstration and explanation of reactions. Identification of glycerol	September	8

			Discussion on practical work demonstrated and practice	November	6
			Assignment on practical work demonstrated	December	4
<b>CC</b>	<b>FNT-A-CC-3-7-Th:</b>	<b>FOOD COMMODITIES ( Theory)</b>	Milk and Milk products : Composition, Classification, Selection Quality and Cost, Processing, Storage and uses in different preparations, Nutritional aspects, shelf life and spoilage. Discussion on lesson taught	July	8
			Eggs: Production, grade, quality selection, storage and spoilage, cost nutritional aspects and use in different preparations. Discussion on lesson taught	August	8
			Beverages: Tea; Coffee. Chocolate and Cocoa Powder- Processing, cost and nutritional aspects, other beverages- Aerated beverages, juices. Discussion on lesson taught	September	4
			Raising and Leavening agents: Types,	November	10

			constituents, uses in cookery and bakery, storage. Sugar and sugar Products: Types of natural, sweeteners, manufacture, selection, storage and use as preserves, stages in sugar cookery.		
			8. Fats and Oils: Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects.	December	8
Hons	VI	<b>UNIT – I MODULE – 20 DIET THERAPY- (A1) Theory</b>	Diseases of the liver, Exocrine Pancreas and Biliary System. Liver function tests and nutritional care in liver disease in the context of results. Dietary care and management in – Viral Hepatitis, Cirrhosis of liver,	July	8
			Dietary care and management in diseases of Gall Bladder and pancreas- Cholelithiasis, Cholecystitis. Cholecystectomy,	August	8

			Anaemias: Pathogenesis and dietary management: Nutritional Anaemias, thalassemia, resulting from Acute Haemorrhage.  Discussion on lesson taught	September	8
			Discussion on CU questions of previous years.	November	4
			Discussion and class test on lesson taught	December	4

**Session: 2019-2020 (Even Semester)**

**CBCS (Sem 2, Sem 4), 1+1+1 (3<sup>rd</sup> year)**

Course type (CC/ GE/SEC/ AECC/D SE	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC-2-3-Th	Basic food science II Theory	Vitamins – Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	March	8
			Contd ( Theory) Vitamin	April Online	6
			Contd ( Theory) water	May Online	8
			Contd ( Theory) Dietary Fibre	June Online	8

CC	FNT-A-CC-2-3-P:	BASIC FOOD SCIENCE-II (Practical)	Determination of Ash content in food and Determination of Moisture content in food. Demonstration and explanation of practical	February	8
			Determination of Vitamin C content of food	March	4
			Determination of calcium and Iron Content of food. Discussion on practical theory	April Online	2
			Discussion on practical work theoretically	May Online	2
CC	FNT-A-CC-4-9-Th	DIET THERAPY-I Theory	Diseases of the liver and Biliary System: Liver function tests. Etiology, symptoms, dietary care and general management of Viral Hepatitis and Cirrhosis of liver. Dietary care and management of Gall Bladder diseases – Cholecystitis and Cholelithiasis.	February	8
			Anaemias: General concept, aetiology, classification, and dietary management of Nutritional anaemia	March	8
CC	FNT-A-CC-5-11-Th:	DIET THERAPY-II Theory	Renal Diseases: Etiology, symptoms and dietary management of acute and chronic	April Online	8

			Glomerulonephritis. Nephrotic syndrome – dietary management. Uraemia – dietary		
--	--	--	--	--	--

**Session: 2020-2021 (Odd Semester) 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	FNT-A-CC-1-1-TH	Basic food science I ( Theory)	Proteins- Definition, Classification, Structure & properties. Amino acids Classification, types, functions.	August Online	8
			Proteins Contd: Proteins - Sources, daily requirements, functions. Effect of too high - too low proteins on health. Digestion & absorption	September Online	8
			Protein Contd: Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio- availability including anti-	November Online	8

			nutritional factors.		
			Discussion on CU questions of previous years.	December online	4
CC	FNT-A-CC-3-7- Th:	FOOD COMMODITIES ( Theory)	Cereals and Millets: Structure, processing, storage, use in various preparation, variety, selection and cost. Cereal products, breakfast cereals, fast food. Pulses and Legumes: Structures, Selection and variety. Storage, Processing and use in different preparations, Nutritional aspects and cost.	July online	8
			Milk and Milk products : Composition, Classification, Selection Quality and Cost, Processing, Storage and uses in different preparations, Nutritional aspects, shelf life and spoilage.	August online	8

			Eggs: Production, grade, quality selection, storage and spoilage, cost nutritional aspects and use in different preparations.		
			Vegetables and Fruits: Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.  Sugar and sugar Products: Types of natural, sweeteners, manufacture, selection, storage and use as preserves, stages in sugar cookery.	September Online	8
			Fats and Oils: Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects. 9. Raising and Leavening agents: Types, constituents,	November Online	8



			uses in cookery and bakery, storage		
			<p>Beverages: Tea; Coffee. Chocolate and Cocoa Powder- Processing, cost and nutritional aspects, other beverages- Aerated beverages, juices.</p> <p>Food Adjuncts: Spices, condiments, herbs, extracts; concentrates essences, food colours, origin, classification, description, uses, specifications, procurements and storage.</p> <p>Convenience Foods: Role, types, advantages, uses, cost and contribution to diet</p> <p>Salt: Types and uses.</p>	December Online	8
<b>CC</b>	<b>FNT-A-DSE-A-5-1-Th:</b>	<b>PUBLIC HEALTH ( Theory)</b>	Health and Dimension of Health: Positive health Versus Absence of disease	July online	8
			Community Water and Waste Management:	August online	8

			Importance of water to the community, etiology and effects of toxic agents, water borne infectious agents, sources of water, safe drinking water, potable water, waste and waste disposal, sewage disposal and treatment, solid waste and disposal, liquid waste disposal.		
			Concept of Epidemiology: Study of the epidemiologic approach- determinants of disease preventive & social means.	September Online	8
			Immunization: Importance and Immunization schedule for children, adults and for foreign travellers.	November Online	8
			Assignment on covered topics	December Online	4

**Session: 2020-2021 (Even Semester)**

**( Maternity leave from April to September)**

**Session: 2021-2022 (Odd Semester)**

Course type (CC/ GE/SEC/ AECC/D SE	Paper	Unit name	Submit name	Month	No. Of classes
CC	FNT- A-CC- 1-1- TH	Basic food science I ( Theory)	Proteins- Definition, Classification, Structure & properties. Amino acids Classification, types, functions. Proteins Contd: Proteins – Sources, daily requirements, functions. Effect of too high – too low proteins on health. Digestion & absorption	November	10
			Protein Contd: Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio- availability including anti- nutritional factors.	December	10
CC	FNT- A-CC- 3-7- Th:	Food commodities theory	Vegetables and Fruits: Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.	November	8
			Beverages: Tea; Coffee. Chocolate	December	8

			<p>and Cocoa Powder- Processing, cost and nutritional aspects, other beverages- Aerated beverages, juices.</p> <p>Raising and Leavening agents: Types, constituents, uses in cookery and bakery, storage.</p>		
CC	FNTA-CC- 1-3-7-P	FOOD COMMODITIES (PRACTICAL)	<p>Detection of starch, sucrose, sucrose, formalin, boric acid, and urea in milk.</p> <p>2. Detection of urea in puffed rice. 3.Detection of Vanaspati in Ghee/Butter.</p> <p>4.Detection of Khesari flour in besan.</p>	November	8
			<p>Practical Contd</p> <p>5.Detection of Metanil yellow in turmeric/coloured sweet products.</p> <p>6. Detection of Argemone oil in edible oil.</p> <p>7. Detection of artificially colour / foreign matter in tea (dust/leaves).</p>	December	8
CC	FNT-A-DSE-A-5-1-Th:	PUBLIC HEALTH Theory	Health and Dimension of Health: Positive health Versus Absence of disease	November	8

			Concept of Epidemiology: Study of the epidemiologic approach- determinants of disease preventive & social means.	December	8
--	--	--	--	----------	---

**Session: 2021-2022 (Even Semester)**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. Of classes
CC	FNT-A-CC-2-3-Th:	BASIC FOOD SCIENCE-II ( Theory)	Vitamins – A,D,E,K  Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	March	8
CC	FNT-A-CC-2-3-P	BASIC FOOD SCIENCE-II ( practical)	Determination of Ash content in food 2.Determination of Moisture content in food	April	8
			Determination of Iron in food Assignment on covered practical work	May	8
CC	FNT-A-CC-4-10-Th	NUTRITIONAL BIOCHEMISTRY-I (Theory )	Intermediary metabolism: Carbohydrate	February	8

			Metabolism, Glycolysis, TCA cycle & energy generation, Discussion on lesson taught		
			Intermediary metabolism: Theory Contd HMP Shunt pathway, gluconeogenesis, glycogenesis,	March	8
			Intermediary metabolism: Theory Contd Glycogenolysis, blood sugar regulation.	April	8
			Discussion on CU questions of previous years	May	4
<b>CC</b>	<b>FNT-A- DSE-B-6- 3-Th:</b>	<b>Food Fermentation (Theory)</b>	Food Fermentation: Definition, Microorganisms used for fermentation, Advantages of fermentation	February	8
			Batch, feedbatch, continuous culture, open and closed system , Growth phases, product formation in microbial culture, factors affecting products formation	March	8
			Study of bioreactor, it's design and operation, Down	April	8

			stream processing and product recovery		
			Discussion on CU questions of previous years. Class test on covered topics	May	4

**Session: 2022-2023 (Odd Semester)**

**(1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup> semester)**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
CC	FNT-A-CC-1-1-TH	Basic food science I ( Theory)	Proteins- Definition, Classification, Structure & properties. Amino acids Classification, types, functions.	August	8
			Proteins Contd: Proteins – Sources, daily requirements, functions. Effect of too high – too low proteins on health. Digestion & absorption	September	8
			Protein Contd: Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio-availability including anti-nutritional factors.	November	8
			Discussion on CU questions of previous years.  Class test on covered topics	December	8

CC	FNT-A-CC-1-1-P:	Basic food science I (practical)	Practical: Identification of Mono, Di and polysaccharides practical demonstration and explanation of reactions	August	4
			Practical ( Contd):- Identification of Proteins, Demonstration and explanation of reactions. Identification of glycerol.	September	4
			Demonstration and explanation of reactions. Discussion and practice of practical demonstration explained.	November	4
			Assignment on covered topics	December	4
CC	FNT-A-CC-3-7-Th:	FOOD COMMODITIES (Theory)	Cereals and Millets: Structure, processing, storage, use in various preparation, variety, selection and cost. Cereal products, breakfast cereals, fast food. 2. Pulses and Legumes: Structures, Selection and variety. Storage, Processing and use in different preparations, Nutritional aspects and cost.	July	8
			Milk and Milk products : Composition, Classification, Selection Quality and Cost, Processing, Storage and uses in different preparations, Nutritional aspects, shelf life and spoilage. 4. Eggs: Production, grade, quality selection, storage and spoilage, cost nutritional aspects and use in different preparations.	August	8
			Meat, Fish and Poultry: Types, Selection, Purchase, Storage, Uses, preparations	September	8



			Cost, Spoilage of fish Poultry and meat. 6. Vegetables and Fruits: Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.		
			Sugar and sugar Products: Types of natural, sweeteners, manufacture, selection, storage and use as preserves, stages in sugar cookery. 8. Fats and Oils: Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects. 9. Raising and Leavening agents: Types, constituents, uses in cookery and bakery, storage.	November	8
			Convenience Foods: Role, types, advantages, uses, cost and contribution to diet. 12. Salt: Types and uses. 13. Beverages: Tea; Coffee. Chocolate and Cocoa Powder-Processing, cost and nutritional aspects, other beverages-Aerated beverages, juices.	December	8
<b>CC</b>	<b>FNTA- CC-1-3-7-P</b>	<b>FOOD COMMODITIES (PRACTICAL)</b>	Detection of starch, sucrose, sucrose, formalin, boric acid, and urea in milk.	July	4
			2. Detection of urea in puffed rice. 3. Detection of Vanaspathi in Ghee/Butter. .	August	4

			<p>Practical Contd</p> <p>4.Detection of Khesari flour in besan</p> <p>5.Detection of Metanil yellow in turmeric/coloured sweet products.</p>	September	4
			<p>6. Detection of Argemone oil in edible oil.</p> <p>7.Detection of artificially colour / foreign matter in tea (dust/leaves)</p>	November	4
			Assignment on covered practical topics and practice	December	4
CC	FNT-A-DSE-A-5-1-Th:	Public health Theory	<p>Health and Dimension of Health: Positive health Versus Absence of disease</p> <p>2. Secondary Sources of Community Health data :Sources of relevant vital statistics of infant, child &amp; maternal mortality rates</p>	July	8
			<p>3.Immunization Importance and Immunization schedule for children, adults and for foreign travellers</p> <p>4.Community Water and Waste Management: Importance of water to the community, etiology and effects of toxic agents, water borne infectious agents, sources of water, safe drinking water, potable water, waste and waste disposal, sewage disposal and treatment, solid waste and disposal, liquid waste disposal.</p>	August	8

			5. Concept of Epidemiology: Study of the epidemiologic approach-determinants of disease preventive & social means.	September	8
			Contd Theory 6. Communicable and infective disease control: Nature of communicable and infectious diseases, infection, contamination, disinfections, decontamination, transmission-direct & indirect, Vector borne disease infecting organisms and positive agents, environmental agents and epidemiological principles of disease control	November	8
			7. Public health hazards due to contaminated foods: Food borne infections and intoxications: symptoms, mode of transmission and methods of prevention, investigation and detection of food borne disease out-break	December	8
<b>Cc</b>	<b>FNT-A-DSE-A-5-1-P</b>	<b>PUBLIC HEALTH (PRACTICAL)</b>	Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.	July	4
			Practical Contd	August	4
			Practical Contd	September	4
<b>CC</b>	<b>FNT-A-DSE-B-5-1-P</b>	<b>Food safety and quality control (practical )</b>	Preparation of project on the food safety and quality control topic and demonstration/presentation	November	4
			Contd Preparation of project on the food safety and quality control topic and demonstration/presentation	December	4

**Session: 2022-2023 (Even Semester)**

**(2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> semester)**

<b>Course type (CC/ GE/SEC/ AECC/D SE</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. Of classes</b>
<b>CC</b>	<b>FNT- A-CC- 2-3- Th:</b>	<b>BASIC FOOD SCIENCE-II ( Theory)</b>	<p>Vitamins – A,D,E,K</p> <p>Bio-Chemical and Physiological Role</p> <p>Physiological role, bio-availability and requirements, sources, deficiency &amp; excess.</p> <p>Discussion on lesson taught</p>	March	8
<b>CC</b>	<b>FNT- A-CC- 2-3-P</b>	<b>Basic food science II practical</b>	<p>Determination of Ash content in food</p> <p>2.Determination of Moisture content in food</p>	April	8
			<p>Determination of Vitamin C content of food</p> <p>Determination of calcium and Iron Content of food. Discussion on practical theory</p>	May	4

CC	FNT-A-CC-4-9- Th:	DIET THERAPY-I Theory	Diseases of the liver and Biliary System: Liver function tests. Etiology, symptoms, dietary care and general management of Viral Hepatitis and Cirrhosis of liver..	February	8
			Dietary care and management of Gall Bladder diseases – Cholecystitis and Cholelithiasis	March	8
			Anaemias: General concept, aetiology, classification, and dietary management of Nutritional anaemia	April	8
			Discussion on CU questions of previous years and Class test on covered topics	May	4
CC	FNT-A-CC-4-9-P:	DIET THERAPY-I (PRACTICAL)	Planning and preparation of normal diets. 2. Planning and preparation of fluid diets. 3. Planning and preparation of	March	8

			soft/semi solid diets.		
			4. Planning and preparation of Diets for the following diseases: i) Peptic ulcer ii) Viral hepatitis iii) Anaemia	April	8
			Assignment on covered practical topics	May	2
CC	FNT-A-DSE-B-6-3- Th:	Food Fermentation (Theory)	Food Fermentation: Definition, Microorganisms used for fermentation, Advantages of fermentation	February	8
			Batch, feedbatch, continuous culture, open and closed system , Growth phases, product formation in microbial culture, factors affecting products formation. Discussion on lesson taught.	March	8
			Study of biofermentor, it's design and operation, Down stream processing and product recovery.	April	8

			Discussion on lesson taught.		
			Discussion on CU questions of previous years and Class test on covered topics	May	4

## Teaching Plan

Department: Geography (Morning Shift)  
Name of the teacher: Sharmi Bhattacharya

Session: 2018 - 2019

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(B.A.Gen) and GE	CC/GE 1	Geomorphology	4. Degradational Processes	1 <sup>st</sup>	4
			5. Principal Geomorphic Agents	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Theories of Slope Evolution and Systems Approach	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			1. Practical (Identification of Minerals)	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			2. Practical (Identification of Rocks)	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
CC(B.A.Gen) and GE	CC/GE 2	Soil Geography	6. Factors of Soil Formation	1 <sup>st</sup>	4
			7. Soil Profile Development	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			8. Properties of Soil	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			9. USDA Scheme, Soil Erosion and Management	3 <sup>rd</sup>	4
			3. Practical (Soil Ternary Diagram)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	10
CC(B.A.Gen) and GE	CC/GE 3	Cultural Geography	9. Cultural Landscape	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			10. Differentiation in Cultural Landscape	2 <sup>nd</sup>	5
			11. Cultural Regions and Realms	3 <sup>rd</sup>	5
			12. Diffusion of Culture and Innovations	4 <sup>th</sup>	4
			1. Practical (Proportional Divided Circles)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
CC(B.A.Gen), SEC and GE	CC/GE 4	Scale and Projection	2. Co-ordinate Systems and Bearing	1 <sup>st</sup>	3
		Remote Sensing and Geographical Information System	8. Basics of Remote Sensing	1 <sup>st</sup> and 2 <sup>nd</sup>	10
			9. FCC and classified raster image	2 <sup>nd</sup>	5
	SEC B2	Rural Development	10. Principles of GIS	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			2. Practical (Projection)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	20
CC(B.A.Gen), SEC and GE	DSE A 5	Regional Development	3. Area based approach to Rural Development	1 <sup>st</sup> and 2 <sup>nd</sup>	10
			4. Rural Governance, Rural Policies and Programmes	3 <sup>rd</sup>	5
			5. Growth Centre Model in Indian Context	1 <sup>st</sup>	4
			6. Problem Regions and Regional Planning	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			7. Development and Underdevelopment	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
	SEC A1	Coastal Management	8. Indicators of Development	3 <sup>rd</sup> and 4 <sup>th</sup>	5
			3. Practical (Location Quotient)	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			4. Practical (Z Score)	3 <sup>rd</sup> and 4 <sup>th</sup>	8
			3. Coastal Hazards and Management	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			4. Principles of Coastal Zone Management	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			9. National and International Patterns of Migration	1 <sup>st</sup>	5
			10. Population and Development	1 <sup>st</sup> and 2 <sup>nd</sup>	5



CC(B.A.Gen) and GE	DSE B 6	Population Dynamics	11. Population Policies, Population and Environment 12. Population Issues 3. Practical (Work Participation Rate)	2 <sup>nd</sup>  2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	5  5 15
--------------------	---------	---------------------	--	---	------------------

### Teaching Plan

Department: Geography (Morning Shift)  
Name of the teacher: Sharmi Bhattacharya

Session: 2019 - 2020

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(B.A.Gen) and GE	CC/GE 1	Geomorphology	4. Degradational Processes	1 <sup>st</sup>	4
			5. Principal Geomorphic Agents	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Theories of Slope Evolution and Systems Approach	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			1. Practical (Identification of Minerals)	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			2. Practical (Identification of Rocks)	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
CC(B.A.Gen) and GE	CC/GE 2	Soil Geography	6. Factors of Soil Formation	1 <sup>st</sup>	4
			7. Soil Profile Development	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			8. Properties of Soil	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			9. USDA Scheme, Soil Erosion and Management	3 <sup>rd</sup>	4
			3. Practical (Soil Ternary Diagram)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	10
CC(B.A.Gen) and GE	CC/GE 3	Cultural Geography	9. Cultural Landscape	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			10. Differentiation in Cultural Landscape	2 <sup>nd</sup>	5
			11. Cultural Regions and Realms	3 <sup>rd</sup>	5
			12. Diffusion of Culture and Innovations	4 <sup>th</sup>	4
			1. Practical (Proportional Divided Circles)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
CC(B.A.Gen), SEC and GE	CC/GE 4	Scale and Projection	2. Co-ordinate Systems and Bearing	1 <sup>st</sup>	3
		Remote Sensing and Geographical Information System	8. Basics of Remote Sensing	1 <sup>st</sup> and 2 <sup>nd</sup>	10
			9. FCC and classified raster image	2 <sup>nd</sup>	5
			10. Principles of GIS	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
	SEC B2	Rural Development	2. Practical (Projection)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	20
			3. Area based approach to Rural Development	1 <sup>st</sup> and 2 <sup>nd</sup>	10
			4. Rural Governance, Rural Policies and Programmes	3 <sup>rd</sup>	5

CC(B.A.Gen), SEC and GE	DSE A 5	Regional Development	5. Growth Centre Model in Indian Context	1 <sup>st</sup>	4
			6. Problem Regions and Regional Planning	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			7. Development and Underdevelopment	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			8. Indicators of Development	3 <sup>rd</sup> and 4 <sup>th</sup>	5
			3. Practical (Location Quotient)	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			4. Practical (Z Score)	3 <sup>rd</sup> and 4 <sup>th</sup>	8
	SEC A1	Coastal Management	3. Coastal Hazards and Management	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			4. Principles of Coastal Zone Management	3 <sup>rd</sup> and 4 <sup>th</sup>	7
CC(B.A.Gen) and GE	DSE B 6	Population Dynamics	9. National and International Patterns of Migration	1 <sup>st</sup>	5
			10. Population and Development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			11. Population Policies, Population and Environment	2 <sup>nd</sup>	5
			12. Population Issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			3. Practical (Work Participation Rate)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	15

### Teaching Plan

**Department:** Geography (Morning Shift)  
**Name of the teacher:** Sharmi Bhattacharya

**Session:** 2020 - 2021

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(B.A.Gen) and GE	CC/GE 1	Geomorphology	4. Degradational Processes	1 <sup>st</sup>	4
			5. Principal Geomorphic Agents	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Theories of Slope Evolution and Systems Approach	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			1. Practical (Identification of Minerals)	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			2. Practical (Identification of Rocks)	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
CC(B.A.Gen) and GE	CC/GE 2	Soil Geography	6. Factors of Soil Formation	1 <sup>st</sup>	4
			7. Soil Profile Development	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			8. Properties of Soil	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			9. USDA Scheme, Soil Erosion and Management	3 <sup>rd</sup>	4
			3. Practical (Soil Ternary Diagram)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	10
CC(B.A.Gen) and GE	CC/GE 3	Cultural Geography	9. Cultural Landscape	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			10. Differentiation in Cultural Landscape	2 <sup>nd</sup>	5
			11. Cultural Regions and Realms	3 <sup>rd</sup>	5
			12. Diffusion of Culture and Innovations	4 <sup>th</sup>	4
			1. Practical (Proportional Divided Circles)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
		Scale and Projection	2. Co-ordinate Systems and Bearing	1 <sup>st</sup>	3

CC(B.A.Gen), SEC and GE	CC/GE 4	Remote Sensing and Geographical Information System	8. Basics of Remote Sensing 9. FCC and classified raster image 10. Principles of GIS 2. Practical (Projection)	1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup>  2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	10 5  6 20
	SEC B2	Rural Development	3. Area based approach to Rural Development 4. Rural Governance, Rural Policies and Programmes	1 <sup>st</sup> and 2 <sup>nd</sup>  3 <sup>rd</sup>	10  5
CC(B.A.Gen), SEC and GE	DSE A 5	Regional Development	7. Development and Underdevelopment 8. Indicators of Development 9. Regional Development, inequality, disparity and diversity 10. Development and disparities in agricultural development 11. Development and disparities in industrial development 12. Development and disparities in human resource development 3. Practical (Location Quotient) 4. Practical (Z Score)	1 <sup>st</sup>  1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup>  2 <sup>nd</sup>  3 <sup>rd</sup>  4 <sup>th</sup>  2 <sup>nd</sup> and 3 <sup>rd</sup> 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	5  5 5  5  5  5  8 15
			3. Coastal Hazards and Management 4. Principles of Coastal Zone Management	1 <sup>st</sup> and 2 <sup>nd</sup>  3 <sup>rd</sup> and 4 <sup>th</sup>	8  7
			9. National and International Patterns of Migration 10. Population and Development 11. Population Policies, Population and Environment 12. Population Issues 3. Practical (Work Participation Rate)	1 <sup>st</sup>  1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup>  2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	5  5 5  5 15

### Teaching Plan

**Department:** Geography (Morning Shift)  
**Name of the teacher:** Sharmi Bhattacharya

**Session:** 2021 - 2022

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(B.A.Gen) and GE	CC/GE 1	Geomorphology	4. Degradational Processes	1 <sup>st</sup>	4
			5. Principal Geomorphic Agents	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Theories of Slope Evolution and Systems Approach	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			1. Practical (Identification of Minerals)	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			2. Practical (Identification of Rocks)	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Factors of Soil Formation	1 <sup>st</sup>	4
			7. Soil Profile Development	1 <sup>st</sup> and 2 <sup>nd</sup>	6

CC(B.A.Gen) and GE	CC/GE 2	Soil Geography	8. Properties of Soil 9. USDA Scheme, Soil Erosion and Management 3. Practical (Soil Ternary Diagram)	2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	6 4 10
CC(B.A.Gen) and GE	CC/GE 3	Cultural Geography	9. Cultural Landscape 10. Differentiation in Cultural Landscape 11. Cultural Regions and Realms 12. Diffusion of Culture and Innovations 1. Practical (Proportional Divided Circles)	1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	6 5 5 4 15
CC(B.A.Gen), SEC and GE	CC/GE 4	Scale and Projection	2. Co-ordinate Systems and Bearing	1 <sup>st</sup>	3
		Remote Sensing and Geographical Information System	8. Basics of Remote Sensing 9. FCC and classified raster image 10. Principles of GIS 2. Practical (Projection)	1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	10 5 6 20
		Rural Development	3. Area based approach to Rural Development 4. Rural Governance, Rural Policies and Programmes	1 <sup>st</sup> and 2 <sup>nd</sup> 3 <sup>rd</sup>	10 5
	SEC B2				
CC(B.A.Gen), SEC and GE	DSE A 5	Regional Development	5. Growth Centre Model in Indian Context 6. Problem Regions and Regional Planning 7. Development and Underdevelopment 8. Indicators of Development 3. Practical (Location Quotient) 4. Practical (Z Score)	1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup> and 4 <sup>th</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup> and 4 <sup>th</sup>	4 5 5 5 8 8
			3. Coastal Hazards and Management 4. Principles of Coastal Zone Management	1 <sup>st</sup> and 2 <sup>nd</sup> 3 <sup>rd</sup> and 4 <sup>th</sup>	8 7
CC(B.A.Gen) and GE	DSE B 6	Population Dynamics	9. National and International Patterns of Migration 10. Population and Development 11. Population Policies, Population and Environment 12. Population Issues 3. Practical (Work Participation Rate)	1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	5 5 5 5 15

### Teaching Plan

Department: Geography (Morning Shift)  
Name of the teacher: Sharmi Bhattacharya

Session: 2022 - 2023

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
			4. Degradational Processes	1 <sup>st</sup>	4

CC(B.A.Gen) and GE	CC/GE 1	Geomorphology	5. Principal Geomorphic Agents	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			6. Theories of Slope Evolution and Systems Approach	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			1. Practical (Identification of Minerals)	1 <sup>st</sup> and 2 <sup>nd</sup>	8
			2. Practical (Identification of Rocks)	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
CC(B.A.Gen) and GE	CC/GE 2	Soil Geography	6. Factors of Soil Formation	1 <sup>st</sup>	4
			7. Soil Profile Development	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			8. Properties of Soil	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			9. USDA Scheme, Soil Erosion and Management	3 <sup>rd</sup>	4
CC(B.A.Gen) and GE	CC/GE 3	Cultural Geography	3. Practical (Soil Ternary Diagram)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	10
			9. Cultural Landscape	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			10. Differentiation in Cultural Landscape	2 <sup>nd</sup>	5
			11. Cultural Regions and Realms	3 <sup>rd</sup>	5
CC(B.A.Gen), SEC and GE	CC/GE 4	Scale and Projection	12. Diffusion of Culture and Innovations	4 <sup>th</sup>	4
			1. Practical (Proportional Divided Circles)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
			2. Co-ordinate Systems and Bearing	1 <sup>st</sup>	3
			8. Basics of Remote Sensing	1 <sup>st</sup> and 2 <sup>nd</sup>	10
CC(B.A.Gen), SEC and GE	SEC B2	Remote Sensing and Geographical Information System	9. FCC and classified raster image	2 <sup>nd</sup>	5
			10. Principles of GIS	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			2. Practical (Landuse and Landcover Map from Satellite Imagery)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup>	20
			3. Area based approach to Rural Development	1 <sup>st</sup> and 2 <sup>nd</sup>	10
CC(B.A.Gen), SEC and GE	DSE A 5	Rural Development	4. Rural Governance, Rural Policies and Programmes	3 <sup>rd</sup>	5
			5. Growth Centre Model in Indian Context	1 <sup>st</sup>	4
			6. Problem Regions and Regional Planning	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			7. Development and Underdevelopment	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
CC(B.A.Gen), SEC and GE	SEC A1	Regional Development	8. Indicators of Development	3 <sup>rd</sup> and 4 <sup>th</sup>	5
			3. Practical (Location Quotient)	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			4. Practical (Z Score)	3 <sup>rd</sup> and 4 <sup>th</sup>	8
			3. Coastal Hazards and Management	1 <sup>st</sup> and 2 <sup>nd</sup>	8
CC(B.A.Gen) and GE	DSE B 6	Coastal Management	4. Principles of Coastal Zone Management	3 <sup>rd</sup> and 4 <sup>th</sup>	7
			9. National and International Patterns of Migration	1 <sup>st</sup>	5
			10. Population and Development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			11. Population Policies, Population and Environment	2 <sup>nd</sup>	5
CC(B.A.Gen) and GE	DSE B 6	Population Dynamics	12. Population Issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			3. Practical (Work Participation Rate)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	15

## Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2018 - 2019

**Name of the teacher:** Debadyuti Mitra

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Oceanography	1. Physical and chemical properties of ocean water	1 <sup>st</sup>	5
			2. Air sea interaction	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Marine resources	2 <sup>nd</sup> and 3 <sup>rd</sup>	3
			4. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Biogeography	1. Ecosystem and biomes	1 <sup>st</sup>	6
			2. Plant types	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Biodiversity	2 <sup>nd</sup> and 3 <sup>rd</sup>	4
			4. Practical (Hythergraph and climograph)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Social Geography	1. Human Society	1 <sup>st</sup>	5
			2. Social organisations	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Race, language and religion	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			4. Social issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			5. Practical (Time series analysis)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P ( Cartography)	Scale and Projection	1. Map projection	1 <sup>st</sup> and 2 <sup>nd</sup>	8
		Surveying	1. Survey equipments: Prismatic compass and dumpy level 2. Practical (choropleths)	2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup>	12 5
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	1. Regional development in India	1 <sup>st</sup>	5
			2. Regional Disparities in India: agricultural development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Regional Disparities in India: industrial development	2 <sup>nd</sup> , 3 <sup>rd</sup>	5
			4. Regional Disparities in India: education and health	3 <sup>rd</sup>	5
			5. Practical (Composite index)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	8
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population and Development	1. Age sex composition	1 <sup>st</sup>	5
			2. Fertility and mortality	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Population composition of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Migration	3 <sup>rd</sup>	3
			5. Practical (Population density mapping)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2019 – 2020

**Name of the teacher:** Debadyuti Mitra

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Oceanography	1. Physical and chemical properties of ocean water	1 <sup>st</sup>	5
			2. Air sea interaction	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Marine resources	2 <sup>nd</sup> and 3 <sup>rd</sup>	3
			4. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Biogeography	1. Ecosystem and biomes	1 <sup>st</sup>	6
			2. Plant types	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Biodiversity	2 <sup>nd</sup> and 3 <sup>rd</sup>	4
			4. Practical (Hythergraph and climograph)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Social Geography	1. Human Society	1 <sup>st</sup>	5
			2. Social organisations	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Race, language and religion	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			4. Social issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			5. Practical (Time series analysis)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P ( Cartography)	Scale and Projection	1. Map projection	1 <sup>st</sup> and 2 <sup>nd</sup>	8
		Surveying	1. Survey equipments: Prismatic compass and dumpy level 2. Practical (choropleths)	2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup>	12 5
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	1. Regional development in India	1 <sup>st</sup>	5
			2. Regional Disparities in India: agricultural development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Regional Disparities in India: industrial development	2 <sup>nd</sup> , 3 <sup>rd</sup>	5
			4. Regional Disparities in India: education and health	3 <sup>rd</sup>	5
			5. Practical (Composite index)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	8
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population and Development	1. Age sex composition	1 <sup>st</sup>	5
			2. Fertility and mortality	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Population composition of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Migration	3 <sup>rd</sup>	3
			5. Practical (Population density mapping)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2020 – 2021

**Name of the teacher:** Debadyuti Mitra

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Oceanography	1. Physical and chemical properties of ocean water	1 <sup>st</sup>	5
			2. Air sea interaction	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Marine resources	2 <sup>nd</sup> and 3 <sup>rd</sup>	3
			4. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Biogeography	1. Ecosystem and biomes	1 <sup>st</sup>	6
			2. Plant types	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Biodiversity	2 <sup>nd</sup> and 3 <sup>rd</sup>	4
			4. Practical (Hythergraph and climograph)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Social Geography	1. Human Society	1 <sup>st</sup>	5
			2. Social organisations	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Race, language and religion	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			4. Social issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			5. Practical (Time series analysis)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P ( Cartography)	Scale and Projection	1. Map projection	1 <sup>st</sup> and 2 <sup>nd</sup>	8
		Surveying	1. Survey equipments: Prismatic compass and dumpy level 2. Practical (choropleths)	2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup>	12 5
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	1. Regional development in India	1 <sup>st</sup>	5
			2. Regional Disparities in India: agricultural development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Regional Disparities in India: industrial development	2 <sup>nd</sup> , 3 <sup>rd</sup>	5
			4. Regional Disparities in India: education and health	3 <sup>rd</sup>	5
			5. Practical (Composite index)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	8
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population and Development	1. Age sex composition	1 <sup>st</sup>	5
			2. Fertility and mortality	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Population composition of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Migration	3 <sup>rd</sup>	3
			5. Practical (Population density mapping)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15



### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2022 – 2023

**Name of the teacher:** Debadyuti Mitra

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Oceanography	1. Physical and chemical properties of ocean water	1 <sup>st</sup>	5
			2. Air sea interaction	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Marine resources	2 <sup>nd</sup> and 3 <sup>rd</sup>	3
			4. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Biogeography	1. Ecosystem and biomes	1 <sup>st</sup>	6
			2. Plant types	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Biodiversity	2 <sup>nd</sup> and 3 <sup>rd</sup>	4
			4. Practical (Hythergraph and climograph)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Social Geography	1. Human Society	1 <sup>st</sup>	5
			2. Social organisations	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Race, language and religion	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			4. Social issues	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			5. Practical (Time series analysis)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P ( Cartography)	Scale and Projection	1. Map projection	1 <sup>st</sup> and 2 <sup>nd</sup>	8
		Surveying	1. Survey equipments: Prismatic compass and dumpy level	2 <sup>nd</sup> and 3 <sup>rd</sup>	12
			2. Practical (choropleths)	3 <sup>rd</sup>	5
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	1. Regional development in India	1 <sup>st</sup>	5
			2. Regional Disparities in India: agricultural development	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Regional Disparities in India: industrial development	2 <sup>nd</sup> , 3 <sup>rd</sup>	5
			4. Regional Disparities in India: education and health	3 <sup>rd</sup>	5
			5. Practical (Composite index)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	8
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population and Development	1. Age sex composition	1 <sup>st</sup>	5
			2. Fertility and mortality	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Population composition of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Migration	3 <sup>rd</sup>	3
			5. Practical (Population density mapping)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	15

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2018 - 2019

**Name of the teacher:** Gourab Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics	1. Earth's Interior	1 <sup>st</sup>	3
			2. Plate Tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Fold and Fault	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			4. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Climatology	1. Insolation and Heat Budget	1 <sup>st</sup>	5
			2. Planetary wind system and Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			3. Atmospheric Disturbances	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Green House and Ozone depletion	3 <sup>rd</sup>	5
			5. Climatic Classification	4 <sup>th</sup>	2
			6. Practical (Weather Map)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Economic Geography	1. Sectors of Economy	1 <sup>st</sup>	5
			2. Location of economic activities	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Location of Industries	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			4. Globalisation	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			5. Practical (Growth rate and NNA)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	25
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P (Cartography)	Scale and Projection	1. Maps and Scales	1 <sup>st</sup>	3
		Topographic and thematic maps	4. SOI Toposheet number system	1 <sup>st</sup>	4
			5. Dot and Circle diagram	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			6. Isopleth and Choropleth	2 <sup>nd</sup>	4
			7. Principal National Agencies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			8. Practical (Scale, Thematic Maps)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	30
	GEO-G-SEC-B-02-TH	Rural Development	1. Concept, Basic Elements, Measuring Level	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			2. Models on Rural Development	2 <sup>nd</sup> and 3 <sup>rd</sup>	10
Geography CC5	GEO-G-DSE-A-5-01-T H and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	1. Concept of Region	1 <sup>st</sup>	3
			2. Regional planning	1 <sup>st</sup>	7
			3. Agro ecological zones	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			4. Models of Planning	2 <sup>nd</sup>	6
			5. Growth centre in India	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
			6. Problem Regions	3 <sup>rd</sup>	5
	GEO-G-SEC-A-01-TH	Coastal Management	7. Practical (Crop combination, Gravity model, Lorenz curve)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	36
			1. Component and morphodynamic variables	1 <sup>st</sup> and 2 <sup>nd</sup>	7
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	2. Environmental impact and management	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			1. Development of Population geography	1 <sup>st</sup>	6
			2. Population Distribution	1 <sup>st</sup>	6
			3. Determinants of population distribution in World	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			4. Population Distribution in India	2 <sup>nd</sup> and 3 <sup>rd</sup>	4

			5. Practical (Population Projection, Dominant Distinctive)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	30
--	--	--	--	---	----

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2019 - 2020

**Name of the teacher:** Gourab Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics	9. Earth's Interior	1 <sup>st</sup>	3
			10. Plate Tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			11. Fold and Fault	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			12. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Climatology	7. Insolation and Heat Budget	1 <sup>st</sup>	5
			8. Planetary wind system and Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			9. Atmospheric Disturbances	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			10. Green House and Ozone depletion	3 <sup>rd</sup>	5
			11. Climatic Classification	4 <sup>th</sup>	2
			12. Practical (Weather Map)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Economic Geography	6. Sectors of Economy	1 <sup>st</sup>	5
			7. Location of economic activities	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			8. Location of Industries	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			9. Globalisation	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			10. Practical (Growth rate and NNA)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	25
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P (Cartography)	Scale and Projection	2. Maps and Scales	1 <sup>st</sup>	3
		Topographic and thematic maps	4. SOI Toposheet number system	1 <sup>st</sup>	4
			13. Dot and Circle diagram	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			14. Isopleth and Choropleth	2 <sup>nd</sup>	4
			15. Principal National Agencies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			16. Practical (Scale, Thematic Maps)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	30
	GEO-G-SEC-B-02-TH	Rural Development	3. Concept, Basic Elements, Measuring Level	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			4. Models on Rural Development	2 <sup>nd</sup> and 3 <sup>rd</sup>	10
Geography CC5	GEO-G-DSE-A-5-01-T H and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	8. Concept of Region	1 <sup>st</sup>	3
			9. Regional planning	1 <sup>st</sup>	7
			10. Agro ecological zones	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			11. Models of Planning	2 <sup>nd</sup>	6
			12. Growth centre in India	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
			13. Problem Regions	3 <sup>rd</sup>	5
			14. Practical (Crop combination, Gravity model, Lorenz curve)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	36
	GEO-G-SEC-A-01-TH	Coastal Management	3. Component and morphodynamic variables	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			4. Environmental impact and management	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	6. Development of Population geography	1 <sup>st</sup>	6
			7. Population Distribution	1 <sup>st</sup>	6
			8. Determinants of population distribution in World	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			9. Population Distribution in India	2 <sup>nd</sup> and 3 <sup>rd</sup>	4

			10. Practical (Population Projection, Dominant Distinctive)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	30
--	--	--	---	---	----

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2020 - 2021

**Name of the teacher:** Gourab Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics	17. Earth's Interior	1 <sup>st</sup>	3
			18. Plate Tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			19. Fold and Fault	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			20. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Climatology	13. Insolation and Heat Budget	1 <sup>st</sup>	5
			14. Planetary wind system and Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			15. Atmospheric Disturbances	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			16. Green House and Ozone depletion	3 <sup>rd</sup>	5
			17. Climatic Classification	4 <sup>th</sup>	2
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Economic Geography	18. Practical (Weather Map)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
			11. Sectors of Economy	1 <sup>st</sup>	5
			12. Location of economic activities	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			13. Location of Industries	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			14. Globalisation	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P (Cartography)	Scale and Projection	15. Practical (Growth rate and NNA)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	25
			3. Maps and Scales	1 <sup>st</sup>	3
			4. SOI Toposheet number system	1 <sup>st</sup>	4
			21. Dot and Circle diagram	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			22. Isopleth and Choropleth	2 <sup>nd</sup>	4
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	23. Principal National Agencies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			24. Practical (Scale, Thematic Maps)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	30
			5. Concept, Basic Elements, Measuring Level	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			6. Models on Rural Development	2 <sup>nd</sup> and 3 <sup>rd</sup>	10
			15. Concept of Region	1 <sup>st</sup>	3
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	16. Regional planning	1 <sup>st</sup>	7
			17. Agro ecological zones	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			18. Models of Planning	2 <sup>nd</sup>	6
			19. Growth centre in India	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
			20. Problem Regions	3 <sup>rd</sup>	5
Geography CC5	GEO-G-SEC-A-01-TH	Coastal Management	21. Practical (Crop combination, Gravity model, Lorenz curve)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	36
			5. Component and morphodynamic variables	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			6. Environmental impact and management	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			11. Development of Population geography	1 <sup>st</sup>	6
			12. Population Distribution	1 <sup>st</sup>	6
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	13. Determinants of population distribution in World	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			14. Population Distribution in India	2 <sup>nd</sup> and 3 <sup>rd</sup>	4

			15. Practical (Population Projection, Dominant Distinctive)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	30
--	--	--	---	---	----

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2021 - 2022

**Name of the teacher:** Gourab Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics	25. Earth's Interior	1 <sup>st</sup>	3
			26. Plate Tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			27. Fold and Fault	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			28. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Climatology	19. Insolation and Heat Budget	1 <sup>st</sup>	5
			20. Planetary wind system and Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			21. Atmospheric Disturbances	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			22. Green House and Ozone depletion	3 <sup>rd</sup>	5
			23. Climatic Classification	4 <sup>th</sup>	2
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Economic Geography	24. Practical (Weather Map)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
			16. Sectors of Economy	1 <sup>st</sup>	5
			17. Location of economic activities	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			18. Location of Industries	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			19. Globalisation	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P (Cartography)	Scale and Projection	20. Practical (Growth rate and NNA)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	25
			4. Maps and Scales	1 <sup>st</sup>	3
			4. SOI Toposheet number system	1 <sup>st</sup>	4
			29. Dot and Circle diagram	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			30. Isopleth and Choropleth	2 <sup>nd</sup>	4
Geography CC5	GEO-G-DSE-A-5-01-T H and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	31. Principal National Agencies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			32. Practical (Scale, Thematic Maps)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	30
			7. Concept, Basic Elements, Measuring Level	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			8. Models on Rural Development	2 <sup>nd</sup> and 3 <sup>rd</sup>	10
			22. Concept of Region	1 <sup>st</sup>	3
Geography CC6	GEO-G-DSE-B-6-04-T H and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	23. Regional planning	1 <sup>st</sup>	7
			24. Agro ecological zones	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			25. Models of Planning	2 <sup>nd</sup>	6
			26. Growth centre in India	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
			27. Problem Regions	3 <sup>rd</sup>	5
Geography CC5	GEO-G-SEC-A-01-TH	Coastal Management	28. Practical (Crop combination, Gravity model, Lorenz curve)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	36
			7. Component and morphodynamic variables	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			8. Environmental impact and management	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			16. Development of Population geography	1 <sup>st</sup>	6
			17. Population Distribution	1 <sup>st</sup>	6
Geography CC6	GEO-G-DSE-B-6-04-T H and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	18. Determinants of population distribution in World	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			19. Population Distribution in India	2 <sup>nd</sup> and 3 <sup>rd</sup>	4



			20. Practical (Population Projection, Dominant Distinctive)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	30
--	--	--	---	---	----

### Teaching Plan

**Department:** Geography (Morning Shift)

**Session:** 2022 - 2023

**Name of the teacher:** Gourab Roy

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography CC and GE1	GEOG-G-CC-1-01-TH and GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics	33. Earth's Interior	1 <sup>st</sup>	3
			34. Plate Tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			35. Fold and Fault	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			36. Practical (Toposheet)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography CC and GE2	GEO-G-CC-2-02-TH and GEO-G-CC-2-02-P (Environmental Geography)	Climatology	25. Insolation and Heat Budget	1 <sup>st</sup>	5
			26. Planetary wind system and Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			27. Atmospheric Disturbances	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			28. Green House and Ozone depletion	3 <sup>rd</sup>	5
			29. Climatic Classification	4 <sup>th</sup>	2
Geography CC and GE3	GEO-G-CC-3-03-TH and GEO-G-CC-3-03-P (Human Geography)	Economic Geography	30. Practical (Weather Map)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
			21. Sectors of Economy	1 <sup>st</sup>	5
			22. Location of economic activities	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			23. Location of Industries	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			24. Globalisation	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
Geography CC and GE4	GEO-G-CC-4-04-TH and GEO-G-CC-4-04-P (Cartography)	Scale and Projection	25. Practical (Growth rate and NNA)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	25
			5. Maps and Scales	1 <sup>st</sup>	3
			4. SOI Toposheet number system	1 <sup>st</sup>	4
			37. Dot and Circle diagram	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			38. Isopleth and Choropleth	2 <sup>nd</sup>	4
Geography CC5	GEO-G-DSE-A-5-01-TH and GEO-G-DSE-A-5-01-P (Regional Development)	Regional Development	39. Principal National Agencies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			40. Practical (Scale, Thematic Maps)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	30
			9. Concept, Basic Elements, Measuring Level	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			10. Models on Rural Development	2 <sup>nd</sup> and 3 <sup>rd</sup>	10
			29. Concept of Region	1 <sup>st</sup>	3
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	30. Regional planning	1 <sup>st</sup>	7
			31. Agro ecological zones	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			32. Models of Planning	2 <sup>nd</sup>	6
			33. Growth centre in India	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
			34. Problem Regions	3 <sup>rd</sup>	5
Geography CC5	GEO-G-SEC-A-01-TH	Coastal Management	35. Practical (Crop combination, Gravity model, Lorenz curve)	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	36
			9. Component and morphodynamic variables	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			10. Environmental impact and management	2 <sup>nd</sup> and 3 <sup>rd</sup>	8
			21. Development of Population geography	1 <sup>st</sup>	6
			22. Population Distribution	1 <sup>st</sup>	6
Geography CC6	GEO-G-DSE-B-6-04-TH and GEO-G-DSE-B-6-04-P (Population Geography)	Population Dynamics	23. Determinants of population distribution in World	1 <sup>st</sup> and 2 <sup>nd</sup>	4
			24. Population Distribution in India	2 <sup>nd</sup> and 3 <sup>rd</sup>	4

			25. Practical (Population Projection, Dominant Distinctive)	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	30
--	--	--	---	---	----

**SETH ANANDRAM JAIPURIA COLLEGE**  
**10, RAJA NABA KRISHNA STREET, KOLKATA - 700005**  
**Department of Geography**  
**Teaching Plan**

**Department:** Geography (Day Shift)  
**Name of the teacher:** Alo Guha

**Session:** 2018 - 2019

Course type (CC/ GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography GE1	GEOG-G-CC-1-01-TH And GEOG-G-CC-1-01-P (Physical Geography )	Geotectonics (Theory, Practical)	1. Earth's Interior with special reference to Seismology	1 <sup>st</sup>	3
			2. Plate Tectonics as a unified theory of global tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Folds and Faults: Classification and surface expression	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			Practical: 3. Interpretation of physical features of Topographical Map of plateau region of India , 1:50000	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE2	GEO-G-CC-2-02-TH And GEO-G-CC-2-02-P ( Environmental Geography)	Climatology (Theory, Practical)	1. Insolation and Heat Budget. Horizontal and Vertical distribution of atmospheric temperature and pressure	1 <sup>st</sup>	5
			2. Planetary wind systems and Indian Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			3. Atmospheric Disturbances: Tropical and Temperate Cyclones, Thunderstorms	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4. Global Climatic Change: Green House Effect and Ozone Depletion	4 <sup>th</sup>	5
			5. Climatic Classification by Koppen Practical – 1. Interpretation of Indian Daily Weather Map	3 <sup>rd</sup>	2
				1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
Geography GE3	GEO-G-CC-3-03-TH And GEO-G-CC-3-03-P ( Human Geography)	Economic Geography (Theory, Practical)	1. Sectors of the economy; Factors affecting location of economic activities	1 <sup>st</sup>	5
			2. Locational Theories of economic activities- Von Thunen, Weber, Losch	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Location of Industries – Iron and Steel and Cotton Textiles of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			4. Globalization and integration of world economies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			Practical –1. Arithmetic growth rate of population, 3. Divided Proportional Circles	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE4	GEO-G-CC-4-04-TH And GEO-G-CC-4-04-P ( Cartography)	Cartography (Theory, Practical)	1. Maps :Classification and types	1 <sup>st</sup>	1
			Scales: Types, significance, applications	1 <sup>st</sup>	2
			4. Survey of India topographical maps: Reference scheme of old and open series, Information on the margin of maps	1 <sup>st</sup>	4
			5. Representation of data by Dots and Proportional Circles	2 <sup>nd</sup>	2
			6. Representation of data by Isopleth and Choropleth	2 <sup>nd</sup>	2
			7. Principal national agencies producing thematic maps in India	3 <sup>rd</sup>	2
			Practical –1. Scales: plain and comparative; 3. Thematic maps :	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20

			Proportional Squares, Proportional Circles, Choropleth, Isopleth		
--	--	--	--	--	--

### Teaching Plan

**Department:** Geography (Day Shift)

**Session:** 2019 - 2020

**Name of the teacher:** Alo Guha

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography GE1	GEOG-G-CC-1-01-TH And GEOG-G-CC-1-01-P (Physical Geography )	Geotectonics (Theory, Practical)	1.Earth's Interior with special reference to Seismology	1 <sup>st</sup>	3
			2.Plate Tectonics as a unified theory of global tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3. Folds and Faults: Classification and surface expression	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			Practical – 3. Interpretation of physical features of Topographical Map of plateau region of India , 1:50000	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE2	GEO-G-CC-2-02-TH And GEO-G-CC-2-02-P ( Environmental Geography)	Climatology (Theory, Practical)	1.Insolation and Heat Budget. Horizontal and Vertical distribution of atmospheric temperature and pressure	1 <sup>st</sup>	5
			2.Planetary wind systems and Indian Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			3.Atmospheric Disturbances: Tropical and Temperate Cyclones, Thunderstorms	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4.Global Climatic Change: Green House Effect and Ozone Depletion	3 <sup>rd</sup>	5
			5.Climatic Classification by Koppen Practical –1. Interpretation of Indian Daily Weather Map	4 <sup>th</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	2 20
Geography GE3	GEO-G-CC-3-03-TH And GEO-G-CC-3-03-P ( Human Geography)	Economic Geography (Theory, Practical)	1. Sectors of the economy; Factors affecting location of economic activities	1 <sup>st</sup>	5
			2. Locational Theories of economic activities- Von Thunen Weber, Losch	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3. Location of Industries – Iron and Steel and Cotton Textiles of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			4. Globalization and integration of world economies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			Practical – 1.Arithmetic growth rate of population, 3. Divided Proportional Circles	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE4	GEO-G-CC-4-04-TH And GEO-G-CC-4-04-P ( Cartography)	Cartography (Theory, Practical)	1.Maps :Classification and types	1 <sup>st</sup>	1
			Scales: Types, significance ,applications	1 <sup>st</sup>	2
			4.Survey of India topographical maps: Reference scheme of old and open series, Information on the margin of maps	1 <sup>st</sup>	4
			5.Representation of data by Dots and Proportional Circles	2 <sup>nd</sup>	2
			6.Representation of data by Isopleth and Choropleth	2 <sup>nd</sup>	2
			7.Principal national agencies producing thematic maps in India	3 <sup>rd</sup>	2
			Practical –1. Scales: plain and comparative; 3. Thematic maps :	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20

			Proportional Squares, Proportional Circles, Choropleth, Isopleth		
--	--	--	--	--	--

### Teaching Plan

**Department:** Geography (Day Shift)

**Session:** 2020 - 2021

**Name of the teacher:** Alo Guha

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Geography GE1	GEOG-G-CC-1-01-TH And GEOG-G-CC-1-01-P (Physical Geography)	Geotectonics (Theory, Practical)	1.Earth's Interior with special reference to Seismology	1 <sup>st</sup>	3
			2.Plate Tectonics as a unified theory of global tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3.Folds and Faults: Classification and surface expression	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			Practical : 1. Interpretation of physical features of Topographical Map of plateau region of India , 1:50000	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE2	GEO-G-CC-2-02-TH And GEO-G-CC-2-02-P ( Environmental Geography)	Climatology (Theory, Practical)	1.Insolation and Heat Budget. Horizontal and Vertical distribution of atmospheric temperature and pressure	1 <sup>st</sup>	5
			2.Planetary wind systems and Indian Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			3.Atmospheric Disturbances: Tropical and Temperate Cyclones, Thunderstorms	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4.Global Climatic Change: Green House Effect and Ozone Depletion	4 <sup>th</sup>	5
			5.Climatic Classification by Koppen .Practical – 1. Interpretation of Indian Daily Weather Map	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
Geography GE3	GEO-G-CC-3-03-TH And GEO-G-CC-3-03-P ( Human Geography)	Economic Geography (Theory, Practical)	1.Sectors of the economy; Factors affecting location of economic activities	1 <sup>st</sup>	5
			2.Locational Theories of economic activities- Von Thunen , Weber, Losch	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3.Location of Industries – Iron and Steel and Cotton Textiles of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			4.Globalization and integration of world economies	2 <sup>nd</sup> and 3 <sup>rd</sup>	20
			Practical – 1. Arithmetic growth rate of population, 3. Divided Proportional Circles		
Geography GE4	GEO-G-CC-4-04-TH And GEO-G-CC-4-04-P ( Cartography)	Cartography (Theory, Practical)	1.Maps :Classification and types	1 <sup>st</sup>	1
			.Scales: Types, significance, applications	1 <sup>st</sup>	2
			4.Survey of India topographical maps: Reference scheme of old and open series, Information on the margin of maps	1 <sup>st</sup>	4
			5.Representation of data by Dots and Proportional Circles	2 <sup>nd</sup>	2
			6.Representation of data by Isopleth	2 <sup>nd</sup>	2
				3 <sup>rd</sup>	2

Geography B.A. General Semester 4 SEC-B1	GEO-G-SEC-B-1	Rural Development	and Choropleth 7.Principal national agencies producing thematic maps in India Practical –1. Scales: plain and comparative; 3.Thematic maps : Proportional Squares, Proportional Circles, Choropleth, Isopleth	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
				1 <sup>st</sup>	5
			1.Rural Development: Concept, Basic elements , Measuring the level of rural development	2 <sup>nd</sup>	5
			2.Paradigms of rural development: Cumulative Causation model, Core- periphery model, Gandhian approach to rural development	2 <sup>nd</sup>	5
Geography B.A. General Semester 5 DSE-A1	GEOG-DSE- A1-01-TH	Regional Development (Theory)	10. Development and regional disparities in India since Independence : Disparities in agricultural development 11. Development and regional disparities in India since Independence : Disparities in industrial development 12. Development and regional disparities in India since Independence : Disparities in human resource development in terms of education and health	1 <sup>st</sup>	5
Geography B.A. General Semester 5 SEC-A1	GEO-G-SEC- A1	Coastal Management	5.Components of a coastal zone. Coastal morphodynamic variables and their role in evolution of coastal forms 6.Environmental impacts and management of mining, oil exploration, salt manufacturing, land reclamation, tourism	2 <sup>nd</sup>	5
				1 <sup>st</sup>	6
Geography B.A. General Semester 6 DSE-B2	GEO-G-DSE- B2-TH	Population Geography ( Theory)	1.Development of Population Geography as a field of specialization. Relation between Population Geography and Demography, Sources of population data, their level of reliability and problems of mapping 2.Population distribution: Density and growth. Classical and modern theories of population distribution and growth. Demographic Transition model.	1 <sup>st</sup>	5
				2 <sup>nd</sup>	5

### Teaching Plan

**Department:** Geography (Day Shift)

**Session:** 2021- 2022

**Name of the teacher:** Alo Guha

Geography GE1	GEOG-G-CC-1-01-TH And GEOG-G-CC-1-01-P (Physical Geography )	Geotectonics (Theory, Practical)	1.Earth's Interior with special reference to Seismology	1 <sup>st</sup>	3
			2.Plate Tectonics as a unified theory of global tectonics	1 <sup>st</sup> and 2 <sup>nd</sup>	7
			3.Folds and Faults: Classification and surface expression	2 <sup>nd</sup> and 3 <sup>rd</sup>	6
			Practical : 1. Interpretation of physical features of Topographical Map of plateau region of India , 1:50000	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE2	GEO-G-CC-2-02-TH And GEO-G-CC-2-02-P ( Environmental Geography)	Climatology (Theory Practical)	1.Insolation and Heat Budget. Horizontal and Vertical distribution of atmospheric temperature and pressure	1 <sup>st</sup>	5
			2.Planetary wind systems and Indian Monsoon	1 <sup>st</sup> and 2 <sup>nd</sup>	6
			3.Atmospheric Disturbances: Tropical and Temperate Cyclones, Thunderstorms	2 <sup>nd</sup> and 3 <sup>rd</sup>	7
			4.Global Climatic Change: Green House Effect and Ozone Depletion	3 <sup>rd</sup>	5
			5.Climatic Classification by Koppen .Practical – 1. Interpretation of Indian Daily Weather Map	4 <sup>th</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	2 20
Geography GE3	GEO-G-CC-3-03-TH And GEO-G-CC-3-03-P ( Human Geography)	Economic Geography Theory, Practical)	1.Sectors of the economy;Factors affecting location of economic activities	1 <sup>st</sup>	5
			2.Locational Theories of economic activities- Von Thunen, Weber, Losch	1 <sup>st</sup> and 2 <sup>nd</sup>	5
			3.Location of Industries – Iron and Steel and Cotton Textiles of India	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			4.Globalization and integration of world economies	2 <sup>nd</sup> and 3 <sup>rd</sup>	5
			Practical –1. Arithmetic growth rate of population, 3. Divided Proportional Circles	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	20
Geography GE4	GEO-G-CC-4-04-TH And GEO-G-CC-4-04-P	Cartography (Theory, Practical)	1.Maps : Classification and types	1 <sup>st</sup>	1
			Scales: Types, significance, applications	1 <sup>st</sup>	2
			4.Survey of India topographical	1 <sup>st</sup>	4



Geography B.A. General Semester 4 SEC-B1	( Cartography)		maps: Reference scheme of old and open series, Information on the margin of maps	2 <sup>nd</sup>	2
			5.Representation of data by Dots and Proportional Circles	2 <sup>nd</sup>	2
			6.Representation of data by Isopleth and Choropleth	3 <sup>rd</sup>	2
			7.Principal national agencies producing thematic maps in India	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20
			Practical – 1.Scales: plain and comparative; 3. Thematic maps : Proportional Squares, Proportional Circles, Choropleth, Isopleth		
	GEO-G-SEC-B1	Rural Development	1.Rural Development: Concept, Basic elements , Measuring the level of rural development	2 <sup>nd</sup>	5
			2.Paradigms of rural development: Cumulative Causation model, Core-periphery model, Gandhian approach to rural development	2 <sup>nd</sup>	5
Geography B.A. General Semester 5 DSE-A1	GEOG-DSE-A1-01-TH	Regional Development (Theory)	10. Development and regional disparities in India since Independence : Disparities in agricultural development	1 <sup>st</sup>	5
			11. Development and regional disparities in India since Independence : Disparities in industrial development	2 <sup>nd</sup>	5
			12. Development and regional disparities in India since Independence : Disparities in human resource development in terms of education and health	3 <sup>rd</sup>	5
Geography B.A. General Semester 5 SEC-A1	GEO-G-SEC-A1	Coastal Management	5.Components of a coastal zone. Coastal morphodynamic variables and their role in evolution of coastal forms	1 <sup>st</sup>	6
			6.Environmental impacts and management of mining, oil exploration, salt manufacturing, land reclamation, tourism	2 <sup>nd</sup>	6
Geography B.A. General Semester 6 DSE-B2	GEO-G-DSE-B2-TH	Population Geography ( Theory)	1.Development of Population Geography as a field of specialization. Relation between Population Geography and Demography, Sources of population data, their level of reliability and problems of mapping	1 <sup>st</sup>	5
			2.Population distribution: Density and growth. Classical and modern theories of population distribution and growth. Demographic Transition model.	2 <sup>nd</sup>	5

--	--	--	--	--	--

### Teaching Plan

**Department:** Geography (Day Shift)

**Session:** 2022-2023

**Name of the teacher:** Alo Guha

Geography GE1	GEOG-G-CC-1-01-TH And GEOG-G-CC-1-01-P (Physical Geography )	Geotectonics (Theory, Practical)	1.Earth's Interior with special reference to Seismology 2.Plate Tectonics as a unified theory of global tectonics 3.Folds and Faults: Classification and surface expression Practical – 1. Interpretation of physical features of Topographical Map of plateau region of India , 1:50000	1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	3 7 6 20
Geography GE2	GEO-G-CC-2-02-TH And GEO-G-CC-2-02-P ( Environmental Geography)	Climatology (Theory Practical)	1.Insolation and Heat Budget. Horizontal and Vertical distribution of atmospheric temperature and pressure 2.Planetary wind systems and Indian Monsoon 3.Atmospheric Disturbances: Tropical and Temperate Cyclones, Thunderstorms 4.Global Climatic Change: Green House Effect and Ozone Depletion 5.Climatic Classification by Koppen Practical – 1. Interpretation of Indian Daily Weather Map	1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	5 6 7 5 2 20
Geography GE3	GEO-G-CC-3-03-TH And GEO-G-CC-3-03-P ( Human Geography)	Economic Geography (Theory, Practical)	1.Sectors of the economy; Factors affecting location of economic activities 2.Locational Theories of economic activities- Von Thunen, Weber, Losch 3.Location of Industries – Iron and Steel and Cotton Textiles of India 4.Globalization and integration of world economies Practical – 1. Arithmetic growth rate of population, 3. Divided Proportional Circles	1 <sup>st</sup> 1 <sup>st</sup> and 2 <sup>nd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>	5 5 5 5 20
Geography GE4	GEO-G-CC-4-04-TH And GEO-G-CC-4-04-P ( Cartography)	Cartography (Theory, Practical)	1.Maps :Classification and types Scales: Types, significance ,applications 4.Survey of India topographical maps: Reference scheme of old and open series, Information on the margin of maps	1 <sup>st</sup> 1 <sup>st</sup> 1 <sup>st</sup>	1 2 4

			5.Representation of data by Dots and Proportional Circles	2 <sup>nd</sup>	2
			6.Representation of data by Isopleth and Choropleth	2 <sup>nd</sup>	2
			7.Principal national agencies producing thematic maps in India	3 <sup>rd</sup>	2
			Practical – 1.Scales: plain and comparative; 3. Thematic maps : Proportional Squares, Proportional Circles, Choropleth, Isopleth	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>	20

TEACHING PLAN OF ALO GUHA, DEPARTMENT OF GEOGRAPHY, DAY SHIFT

---

**Name of the teacher: Dr. Baijayanti Chatterjee**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>Number of Classes</b>
<b>CC 4 (Sem 2 Hons)</b>	Social Formations and Cultural Patterns of the Medieval World other than India	1. Crisis of the Roman Empire and its principal causes	Historiography	July-August	8
		2. Judaism & Christianity under Islam	Crusades	August-September	8
<b>SEC-B2 (Sem 4 Hons)</b>	Art Appreciation: An Introduction to Indian Art	1. Prehistoric and protohistoric art	Harappa	July	2
		2. Indian art (c. 600 BCE – 600 CE)	Stupa, Temple Architecture	August	4
		3. Indian art and architecture (c. 1200 CE – 1800 CE)	Sultanate and Mughal Architecture	September-October	8
		4. Modern and Contemporary Indian art and Architecture	Colonial Period Art Movt. Bengal School of Art	November	4
<b>CC 14 (Sem 6 Hons)</b>	History of World Politics: (1945-1994)	1. West Asian Crisis	Arab-Israel Conflict	July	4
<b>CC 2 Sem 2 (Gen)</b>	History of India from. C.300 to 1206	1. Rise and Growth of the Guptas 2. Arabs in Sindh	Administration, Society, Economy, Religion, Art, Literature, and Science & Technology.	July-November	24
<b>CC 4 Sem 4 (Gen)</b>	History of India from 1707-1950	1. Interpreting the 18th Century. 2. Expansion & consolidation of Colonial Power up to 1857.	Expansion of British power in Bengal Anglo-French conflict Anglo-Mysore relations	July-November	24
<b>SEC A 1 Sem 4 (Gen)</b>	Historical Tourism: Theory & Practice	1. Defining Heritage 2. Understanding built heritage	Stupa Architecture Temple Architecture	July-November	12
<b>DSE Sem 6 (Gen)</b>	Some Aspects of Society & Economy of Modern Europe: 15 – 18 Century	1. Historiographical Trends 2. Renaissance	Renaissance: Origin, Spread & dominant features	July-November	24
<b>SEC Sem 6 (Gen)</b>	Museums & Archives	1. Definitions 2. History of setting up museums & archives	Case Studies, Field Work	July-November	12

# Teaching Plan

**Department: History**

**Session: Jan 2019 – June 2019**

**Name of the teacher: Dr. Baijayanti Chatterjee**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>Number of Classes</b>
CC2 (Sem 1):	Social Formations and Cultural Patterns of the Ancient World other than India	1. Bronze-Age Civilisations 2. Slave society in ancient Greece & Rome	Egypt	Jan-Feb	8
			Rome	March-April	8
SEC A1 (Sem 3 honours)	Archives & Museums	Definition and history of development (with special reference to India),	Types of Archives & Museums	Jan-April	12
DSE-A-1 (SEM -5: honours)	History of Bengal (c.1757-1905)	Administrative history: 1765--1833	Grant of Diwani, Regulating Act, Pitts India Act	Feb-Mar	8
CC 1 (Sem 1 Gen)	History of India from the Earliest Times upto 300 CE	1.The Vedic Period 2. Rise of Magadha 3. Maurya Empire 4. The Satavahana Phase 5. The Sangam Age	Polity, Society, Economy and Religion	Jan-April	24
CC 3 (Sem 3 Gen)	History of India from c. 1206 to 1707	Foundation, Expansion & consolidation of the Delhi Sultanate Military, administrative & economic reforms under the Khiljis & the Tughlaqs. Bhakti & Sufi Movements	Nobility & Iqta system	Jan -May	24
DSE A (Sem 5 Gen)	Some Aspects of European History: C.1780-1945	The French Revolution Napoleonic Era and aftermath. Unification of Italy & Germany.	Genesis Nature & Consequences	Jan-May	24

**Name of the teacher: Dr. Baijayanti Chatterjee**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>Number of Classes</b>
<b>CC 4 (Sem 2 Hons)</b>	Social Formations and Cultural Patterns of the Medieval World other than India	3. Crisis of the Roman Empire and its principal causes	Historiography	July-August	8
		4. Judaism & Christianity under Islam	Crusades	August-September	8
<b>SEC-B2 (Sem 4 Hons)</b>	Art Appreciation: An Introduction to Indian Art	5. Prehistoric and protohistoric art	Harappa	July	2
		6. Indian art (c. 600 BCE – 600 CE)	Stupa, Temple Architecture	August	4
		7. Indian art and architecture (c. 1200 CE – 1800 CE)	Sultanate and Mughal Architecture	September-October	8
		8. Modern and Contemporary Indian art and Architecture	Colonial Period Art Movt. Bengal School of Art	November	4
<b>CC 14 (Sem 6 Hons)</b>	History of World Politics: (1945-1994)	2. West Asian Crisis	Arab-Israel Conflict	July	4
<b>CC 2 Sem 2 (Gen)</b>	History of India from. C.300 to1206	3. Rise and Growth of the Guptas 4. Arabs in Sindh	Administration, Society, Economy, Religion, Art, Literature, and Science &Technology.	July-November	24
<b>CC 4 Sem 4 (Gen)</b>	History of India from 1707-1950	3. Interpreting the 18th Century. 4. Expansion &consolidation of Colonial Power up to 1857.	Expansion of British power in Bengal Anglo-French conflict Anglo-Mysore relations	July-November	24
<b>SEC A 1 Sem 4 (Gen)</b>	Historical Tourism: Theory &Practice	3. Defining Heritage 4. Understanding built heritage	Stupa Architecture Temple Architecture	July-November	12
<b>DSE Sem 6 (Gen)</b>	Some Aspects of Society &Economy of Modern Europe: 15 – 18 Century	3. Historiographical Trends 4. Renaissance	Renaissance: Origin, Spread & dominant features	July-November	24
<b>SEC Sem 6 (Gen)</b>	Museums & Archives	1.Definitions 2. History of setting up museums & archives	Case Studies, Field Work	July-November	12

# Teaching Plan

**Department: History**

**Session: Jan 2020 – June 2020**

**Name of the teacher: Dr. Baijayanti Chatterjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit Name	Sub-unit name	Month	Number of Classes
CC2 (Sem 1):	Social Formations and Cultural Patterns of the Ancient World other than India	1. Bronze-Age Civilisations 2. Slave society in ancient Greece & Rome	Egypt	Jan-Feb	8
			Rome	March-April	8
SEC A1 (Sem 3 honours)	Archives & Museums	Definition and history of development (with special reference to India),	Types of Archives & Museums	Jan-April	12
DSE-A-1 (SEM -5: honours)	History of Bengal (c.1757-1905)	Administrative history: 1765--1833	Grant of Diwani, Regulating Act, Pitts India Act	Feb-Mar	8
CC 1 (Sem 1 Gen)	History of India from the Earliest Times upto 300 CE	1.The Vedic Period 2. Rise of Magadha 3. Maurya Empire 4. The Satavahana Phase 5. The Sangam Age	Polity, Society, Economy and Religion	Jan-April	24
CC 3 (Sem 3 Gen)	History of India from c. 1206 to1707	Foundation, Expansion &consolidation of the Delhi Sultanate Military, administrative &economic reforms under the Khiljis &the Tughlaqs. Bhakti & Sufi Movements	Nobility &Iqta system	Jan -May	24
DSE A (Sem 5 Gen)	Some Aspects of European History: C.1780-1945	The French Revolution Napoleonic Era and aftermath. Unification of Italy & Germany.	Genesis Nature & Consequences	Jan-May	24

# Teaching Plan

**Department: History**

**Session: July 2020-Dec 2020**

**Name of the teacher: Dr. Baijayanti Chatterjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit Name	Sub-unit name	Month	Number of Classes
CC 4 (Sem 2 Hons)	Social Formations and Cultural Patterns of the Medieval World other than India	5. Crisis of the Roman Empire and its principal causes	Historiography	July-August	8
		6. Judaism & Christianity under Islam	Crusades	August-September	8
SEC-B2 (Sem 4 Hons)	Art Appreciation: An Introduction to Indian Art	9. Prehistoric and protohistoric art	Harappa	July	2
		10. Indian art (c. 600 BCE – 600 CE)	Stupa, Temple Architecture	August	4
		11. Indian art and architecture (c. 1200 CE – 1800 CE)	Sultanate and Mughal Architecture		8
		12. Modern and Contemporary Indian art and Architecture	Colonial Period Art Movt. Bengal School of Art	September-October	4
CC 14 (Sem 6 Hons)	History of World Politics: (1945-1994)	3. West Asian Crisis	Arab-Israel Conflict	July	4
CC 2 Sem 2 (Gen)	History of India from. C.300 to1206	5. Rise and Growth of the Guptas 6. Arabs in Sindh	Administration, Society, Economy, Religion, Art, Literature, and Science &Technology.	July-November	24
CC 4 Sem 4 (Gen)	History of India from 1707-1950	5. Interpreting the 18th Century. 6. Expansion &consolidation of Colonial Power up to 1857.	Expansion of British power in Bengal Anglo-French conflict Anglo-Mysore relations	July-November	24
SEC A 1 Sem 4 (Gen)	Historical Tourism: Theory &Practice	5. Defining Heritage 6. Understanding built heritage	Stupa Architecture Temple Architecture	July-November	12
DSE Sem 6 (Gen)	Some Aspects of Society &Economy of Modern Europe: 15 – 18 Century	5. Historiographical Trends 6. Renaissance	Renaissance: Origin, Spread & dominant features	July-November	24
SEC Sem 6 (Gen)	Museums & Archives	1.Definitions 2. History of setting up museums & archives	Case Studies, Field Work	July-November	12



## Teaching Plan

**Department: History**

**Session: Jan 2021 – June 2021**

**Name of the teacher: Dr. Baijayanti Chatterjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit Name	Sub-unit name	Month	Number of Classes
CC2 (Sem 1):	Social Formations and Cultural Patterns of the Ancient World other than India	1. Bronze-Age Civilisations 2. Slave society in ancient Greece & Rome	Egypt	Jan-Feb	8
			Rome	March-April	8
SEC A1 (Sem 3 honours)	Archives & Museums	Definition and history of development (with special reference to India),	Types of Archives & Museums	Jan-April	12
DSE-A-1 (SEM -5: honours)	History of Bengal (c.1757-1905)	Administrative history: 1765--1833	Grant of Diwani, Regulating Act, Pitts India Act	Feb-Mar	8
CC 1 (Sem 1 Gen)	History of India from the Earliest Times upto 300 CE	1.The Vedic Period 2. Rise of Magadha 3. Maurya Empire 4. The Satavahana Phase 5. The Sangam Age	Polity, Society, Economy and Religion	Jan-April	24
CC 3 (Sem 3 Gen)	History of India from c. 1206 to1707	Foundation, Expansion &consolidation of the Delhi Sultanate Military, administrative &economic reforms under the Khiljis &the Tughlaqs. Bhakti & Sufi Movements	Nobility &Iqta system	Jan -May	24
DSE A (Sem 5 Gen)	Some Aspects of European History: C.1780-1945	The French Revolution Napoleonic Era and aftermath. Unification of Italy & Germany.	Genesis Nature & Consequences	Jan-May	24

# Teaching Plan

**Department: History**

**Session: July 2021-Dec 2021**

**Name of the teacher: Dr. Baijayanti Chatterjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit Name	Sub-unit name	Month	Number of Classes
CC 4 (Sem 2 Hons)	Social Formations and Cultural Patterns of the Medieval World other than India	7. Crisis of the Roman Empire and its principal causes	Historiography	July-August	8
		8. Judaism & Christianity under Islam	Crusades	August-September	8
SEC-B2 (Sem 4 Hons)	Art Appreciation: An Introduction to Indian Art	13. Prehistoric and protohistoric art	Harappa	July	2
		14. Indian art (c. 600 BCE – 600 CE)	Stupa, Temple Architecture	August	4
		15. Indian art and architecture (c. 1200 CE – 1800 CE)	Sultanate and Mughal Architecture	September-October	8
		16. Modern and Contemporary Indian art and Architecture	Colonial Period Art Movt. Bengal School of Art	November	4
CC 14 (Sem 6 Hons)	History of World Politics: (1945-1994)	4. West Asian Crisis	Arab-Israel Conflict	July	4
CC 2 Sem 2 (Gen)	History of India from. C.300 to1206	7. Rise and Growth of the Guptas 8. Arabs in Sindh	Administration, Society, Economy, Religion, Art, Literature, and Science &Technology.	July-November	24
CC 4 Sem 4 (Gen)	History of India from 1707-1950	7. Interpreting the 18th Century. 8. Expansion &consolidation of Colonial Power up to 1857.	Expansion of British power in Bengal Anglo-French conflict Anglo-Mysore relations	July-November	24
SEC A 1 Sem 4 (Gen)	Historical Tourism: Theory &Practice	7. Defining Heritage 8. Understanding built heritage	Stupa Architecture Temple Architecture	July-November	12
DSE Sem 6 (Gen)	Some Aspects of Society &Economy of Modern Europe: 15 – 18 Century	7. Historiographical Trends 8. Renaissance	Renaissance: Origin, Spread & dominant features	July-November	24
SEC Sem 6 (Gen)	Museums & Archives	1.Definitions 2. History of setting up museums & archives	Case Studies, Field Work	July-November	12

# Teaching Plan

**Department: History**

**Session: Jan 2022 – June 2022**

**Name of the teacher: Dr. Baijayanti Chatterjee**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit Name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>Number of Classes</b>
CC2 (Sem 1):	Social Formations and Cultural Patterns of the Ancient World other than India	1. Bronze-Age Civilisations	Egypt	Jan-Feb	8
		2. Slave society in ancient Greece & Rome	Rome	March-April	8
SEC A1 (Sem 3 honours)	Archives & Museums	Definition and history of development (with special reference to India),	Types of Archives & Museums	Jan-April	12
DSE-A-1 (SEM -5: honours)	History of Bengal (c.1757-1905)	Administrative history: 1765--1833	Grant of Diwani, Regulating Act, Pitts India Act	Feb-Mar	8
CC 1 (Sem 1 Gen)	History of India from the Earliest Times upto 300 CE	1.The Vedic Period 2. Rise of Magadha 3. Maurya Empire 4. The Satavahana Phase 5. The Sangam Age	Polity, Society, Economy and Religion	Jan-April	24
CC 3 (Sem 3 Gen)	History of India from c. 1206 to 1707	Foundation, Expansion & consolidation of the Delhi Sultanate Military, administrative & economic reforms under the Khiljis & the Tughlaqs. Bhakti & Sufi Movements	Nobility & Iqta system	Jan -May	24
DSE A (Sem 5 Gen)	Some Aspects of European History: C.1780-1945	The French Revolution Napoleonic Era and aftermath. Unification of Italy & Germany.	Genesis Nature & Consequences	Jan-May	24

# Teaching Plan

Department: History

Session: July 2022-Dec 2022

Name of the teacher: Dr. Baijayanti Chatterjee

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit Name	Sub-unit name	Month	Number of Classes
CC 4 (Sem 2 Hons)	Social Formations and Cultural Patterns of the Medieval World other than India	9. Crisis of the Roman Empire and its principal causes	Historiography	July-August	8
		10. Judaism & Christianity under Islam	Crusades	August-September	8
SEC-B2 (Sem 4 Hons)	Art Appreciation: An Introduction to Indian Art	17. Prehistoric and protohistoric art	Harappa	July	2
		18. Indian art (c. 600 BCE – 600 CE)	Stupa, Temple Architecture	August	4
		19. Indian art and architecture (c. 1200 CE – 1800 CE)	Sultanate and Mughal Architecture	September-October	8
		20. Modern and Contemporary Indian art and Architecture	Colonial Period Art Movt. Bengal School of Art	November	4
CC 14 (Sem 6 Hons)	History of World Politics: (1945-1994)	5. West Asian Crisis	Arab-Israel Conflict	July	4
CC 2 Sem 2 (Gen)	History of India from. C.300 to1206	9. Rise and Growth of the Guptas 10. Arabs in Sindh	Administration, Society, Economy, Religion, Art, Literature, and Science &Technology.	July-November	24
CC 4 Sem 4 (Gen)	History of India from 1707-1950	9. Interpreting the 18th Century. 10. Expansion &consolidation of Colonial Power up to 1857.	Expansion of British power in Bengal Anglo-French conflict Anglo-Mysore relations	July-November	24
SEC A 1 Sem 4 (Gen)	Historical Tourism: Theory &Practice	9. Defining Heritage 10. Understanding built heritage	Stupa Architecture Temple Architecture	July-November	12
DSE Sem 6 (Gen)	Some Aspects of Society &Economy of Modern Europe: 15 – 18 Century	9. Historiographical Trends 10. Renaissance	Renaissance: Origin, Spread & dominant features	July-November	24
SEC Sem 6 (Gen)	Museums & Archives	1.Definitions 2. History of setting up museums & archives	Case Studies, Field Work	July-November	12

## Teaching Plan

**Department: History      Session: 2023 JULY to DECEMBER (odd semester)**

**Name of the teacher: SURANJANA GANGOPADHYAY**

**(HONS. Syllabus/topics are tentative. In October and November due to Puja vacation I have counted 2 weeks working day, In December working days 20 days)**

<b>Course type (CC/GE/SEC/A ECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>NUNBER of classes</b>
<b>SEM 1</b>	CC1/GE1	History of India from Earliest Times up to 300 CE	I. Sources & Interpretation II. A broad survey of Palaeolithic & Mesolithic	JULY	12 +2
<b>SEM 3</b>	CC/GE 3	History of India from 1206 to 1707	Emergence and consolidation of Mughal State, C.16th century to mid-17th century.	JULY	14
<b>SEM 5</b>	DSE-A -2	Some Aspects of European History: C.1780-1945	Imperialist Conflicts: World War I	JULY	12
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Hunter-gatherers and the advent of food products a) Paleolithic cultures- sequence and distribution; stone industries and other technological developments.	JULY	8
<b>SEM 1</b>	CC1/GE1	History of India from Earliest Times up to 300 CE	II. A broad survey of Stone age in Indian sub-continent: Neolithic age, 'Neolithic revolution'	AUGUST	14

<b>SEM 3</b>	CC/G E 3	History of India from 1206 to 1707	VII. Akbar to Aurangzeb: Outline of the political scenario, VII. Akbar to Aurangzeb: administrative structure	AUGUST	4 + 10
<b>SEM 5</b>	DSE- A -2	Some Aspects of European History: C.1780-1945	Rise of Fascism	AUGUST	12
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Mesolithic cultures – regional and chronological distribution; new developments in technology and economy; rock art.	AUGUST	08
<b>SEM 1</b>	CC1/ GE1	History of India from Earliest Times up to 300 CE	Topic III. Chalcolithic Age: Harappan Civilization : Origin, Extent	SEPTEMBER	14
<b>SEM 3</b>	CC/G E 3	History of India from 1206 to 1707	Topic VII. Akbar to Aurangzeb: Mansab & Jagirs	SEPTEMBER	14
<b>SEM 5</b>	DSE- A 2	Some Aspects of European History: C.1780-1945	Rise of Nazism	SEPTEMBER	12
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Neolithic cultures: distribution and subsistence pattern	SEPTEMBER	08
<b>SEM 1</b>	CC1/ GE1	History of India from Earliest Times up to 300 CE	Topic III. Harappan Civilization : Dominant features	OCTOBER	04
<b>SEM 3</b>	CC/G E 3	History of India from 1206 to 1707	Topic VII. Akbar to Aurangzeb: State & Religion	October	07
<b>SEM 5</b>	DSE- A 2	Some Aspects of European History: C.1780-1945	Origins of World War II	OCTOBER	06
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Neolithic cultures: distribution and subsistence pattern	OCTOBER	04
<b>SEM 1</b>	CC1/	History of India from Earliest	III. Harappan Civilization: Dominant features	NOVEMBR	07

	GE1	Times up to 300 CE			
<b>SEM 3</b>	CC/G E 3	History of India from 1206 to1707	Topic VII. Akbar to Aurangzeb: VIII. Economy, Society & Culture under the Mughal	NOVEMBER	07
<b>SEM 5</b>	DSE- A 2	Some Aspects of European History: C.1780-1945	Origins of World War II	NOVEMBER	06
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Neolithic cultures: distribution and subsistence pattern	NOVEMBER	04
<b>SEM 1</b>	CC1/ GE1	History of India from Earliest Times up to 300 CE	III. Harappan Civilization: Decline	DECEMBER	07
<b>SEM 3</b>	CC/G E 3	History of India from 1206 to1707	Topic IX. Emergence of Maratha Power	DECEMBER	07
<b>SEM 5</b>	DSE- A 2	Some Aspects of European History: C.1780-1945	Origins of World War II	DECEMBER	06
<b>SEM1 (HONS.)</b>	CC 1	History of India from the earliest times to C 300 BCE	Topic II. Hunter-gatherers and the advent of food products: Neolithic cultures: distribution and subsistence pattern	DECEMBER	04

## Teaching Plan

**Department:History**

**Session:January -June 2019**

**Name of the teacher: Prof.Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2 (Hons)	cc3- History of India C 300BC-750 BCE	II. Changing Political formations 300BCE- CE300	1.The Mauryan Empire 2.Kushanas 3.Satavahanas. 4.Guptas 5.Post- Guptas	Januar y Februar y March April May	8 10 10 9 11
CC					



## Teaching Plan

**Department:History**

**Session:July -December 2019**

**Name of the teacher: Prof. Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-September	14
				August-November	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-September	13
				August	11
				October November	8

## Teaching Plan

**Department:History**

**Session:January -June 2020**

**Name of the teacher: Prof.Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2 (Hons)	cc3- History of India C 300BC-750 BCE	II. Changing Political formations 300BCE- CE300	1.The Mauryan Empire	January	8
			2.Kushanas	February	10
			3.Satavahanas.	March	9
			4.Guptas	April	11
			5.Post- Guptas	May	
CC Sem4 (Hons)	cc9 History of India C 1526- 1605	I.Sources of History II.Establish ment of Mughal rule III. Consolidati on of Mughal rule under Akbar IV. Expansion and Integration	1.Persian and Vernacular traditions	January	5
			2.Babur		8
			3,Humayun	February	8
			4.Akbar	March	11
			IV. Rajputs Conquest of bengal	April May	11
CC					

## Teaching Plan

**Department:History**

**Session:July -December 2020**

**Name of the teacher: Prof. Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-September	14
				August-November	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-September	13
				August	11
				October November	8
CC Sem5 (Hons)	cc12 History of India 1750s -1857	II.Expansion and consolidation of colonial power VI, Popular uprisings	1. Conquest of Bengal 2. Santhal 3.Indigo 4. Pabna uprisings	July-August	12
				September	16
				November	10
	DSE-A1	Bengal	1.Plassey to Buxar 2. Sanyasi,Fakir rebellion.Pabna and Indigo 3.Partition of Bengal	July	8
				August-October	12
				November	9

## Teaching Plan

**Department:History**

**Session:July -December 2021**

**Name of the teacher: Prof. Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-Se ptembe r.	14
				August- Novem ber	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-Se ptembe r	13
				August	11
				Octobe r Novem ber	8
CC Sem5 (Hons)	cc12 History of India 1750s -1857	II.Expansio n and consolidatio n of colonial power VI, Popular uprisings	1. Conquest of Bengal 2. Santhal 3.Indigo 4. Pabna uprisings	July-Au gust	12
				Septem ber-No	16
				vember	10
	DSE-A1	Bengal	1.Plassey to Buxar 2. Sanyasi,Fakir rebellion.Pabna and Indigo 3.Partition of Bengal	July	8
				August- Ocober	12
				Novem ber	9

## Teaching Plan

**Department:History**

**Session:January -June 2022**

**Name of the teacher: Prof.Gopa Basu Mondal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2 (Hons)	cc3- History of India C 300BC-750 BCE	II. Changing Political formations 300BCE- CE300	1.The Mauryan Empire 2.Kushanas 3.Satavahanas. 4.Guptas 5.Post- Guptas	Januar y Februar y March April May	8 10 10 9 11
CC Sem4 (Hons)	cc9 History of India C 1526- 1605	I.Sources of History II.Establish ment of Mughal rule III. Consolidati on of Mughal rule under Akbar IV. Expansion and Integration	1.Persian and Vernacular traditions 2.Babur 3,Humayun 4.Akbar IV. Rajputs Conquest of bengal	Januar y  Februar y March April May	5  8 8 11 11
CC Sem6 (Hons)	cc13 History of India 1857-196	I, Cultural changes and social and religious movements II.Nationalis m upto 1819 VIIIndepend ence and partition	1,Press 2,Debate on gender 3. Moderates and extremist 4, Swadeshi movement 5, Partition of India	Januar y-Febru ary March April May	8 8 10 9 11
	DSE-A3	Popular Resistance and groups	Krishak praja party Peasants and Labour	Januar y Februar y	24-28

			Hindu mahasabha Dalit movement Women movement	March April May	

## Teaching Plan

**Department: Department of History**

**Session: July - December 2018**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC sem1 honours	cc2 Social Formations and Cultural patterns of the ancient world other than India	Evolution of human kind I. Feudalism II. Voyages of discovery	Paleolithic and Mesolithic Cultures I. Transition debate II. Motives and Portuguese and Spanish voyages of discovery 1. Napoleon consolidations*	July	7, 9, 9
		Food production and settled life	Beginnings of agriculture and animal husbandry III. Renaissance humanism, classics, impact on art architecture music, spread.	August-September	9, 10, 5

		Bronze age Civilization IV.Reformation movement.	Features of Bronze age culture IV.Martin Luther Calvin anabaptist,counter reformation.	October	6,10,8
		Nomadic groups in Central and West Asia V.Economic developments.VI.Monarchy.	Debate on the advent of iron and its implications V.Commercial revolution, price revolution, agricultural revolution.National monarchy.	November	9,8,10



## Teaching Plan

**Department: Department of History**

**Session: January to June 2019**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem2 (Hons)	cc4 Social Formations and Cultural Patterns of the Medieval world other than India	Group B  Religion and culture in medieval Europe	Roman Catholic Church- foundation powers and organization .. The Investiture contest	January	8-9,
				February	12
			Monasticism Carolingian Renaissance 12th c renaissance Emergence of Universities Position of women	March	9-10.
				April	6 9
				May	11
					12

## Teaching Plan

**Department: Department of History**

**Session: July - December 2019**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC sem1 honours	cc2 Social Formations and Cultural patterns of the ancient world other than India	Evolution of human kind I. Feudalism II. Voyages of discovery 1. The French Revolution*	Paleolithic and Mesolithic Cultures I. Transition debate II. Motives and Portuguese and Spanish voyages of discovery 1. Napoleon consolidations*	July	7, 9, 9
CC Sem 3	cc6 Rise of the Modern west-1 (I, II, III, IV, V, VI)	Food and production III. Renaissance 2. Restoration and revolution *	Beginnings of agriculture and animal husbandry III. Renaissance humanism, classics, impact on art architecture music, spread.	August-September	9, 10, 5

		Bronze age Civilization IV.Reformation movement.	Features of Bronze age culture IV.Martin Luther Calvin anabaptist,counter reformation.	October	6,10,8
		Nomadic groups in Central and West Asia V.Economic developments.VI.Monarchy.	Debate on the advent of iron and its implications V.Commercial revolution, price revolution, agricultural revolution.National monarchy.	November	9,8,10

## Teaching Plan

**Department: Department of History**

**Session: January to June 2020**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem2 (Hons)	cc4 Social Formations and Cultural Patterns of the Medieval world other than India	Group B Religion and culture in medieval Europe I. History of printing revolution .	Roman Catholic Church- foundation ,powers and organization I.Printing and military revolution	January	8-9,  12
CC Sem4 (Hons)	cc8 Rise of Modern West II(1,II,III,IV,V, VI)	II. 17th c V.Economic development s . III. Scientific development and Enlightenme nt	Monasticism Carolingian Renaissance II.17th c crisis,economic social and political dimension. Mercantalism Scientific Revolution	Februar y- March  April  May	9-10. 6 9  11  12

## Teaching Plan

**Department: Department of History**

**Session: July 2020- December 2020**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	cc2 Social Formations and Cultural patterns of the ancient world other than India	Evolution of human kind I.Feudalism II.Voyages of discovery 1. The French Revolution*	Paleolithic and Mesolithic Cultures I.Transition debate II. Motives and Portuguese and Spanish voyages of discovery 1. Napoleon consolidations*	July	7, 9,9
CC	cc6 Rise of the Modern west-1 (1,II.III,IV,V, VI )	Food and production III.Renaissan ce 2.Restoration and revolution *	Beginnings of agriculture and animal husbandry III. Renaissance humanism, classics, impact on art architecture music,spread. 2.Metternich, important social ,political and intellectual trends*	August- Septem ber	9,10,5

	cc11 History of Modern Europe 1780-1939 (1-6)*	3. Capitalist industrialization, social economic transformations.. upto 1914	3.Industrialization of Britain France Germany and Russia. Differentiation of social classes	September	6
		Bronze age Civilization IV.Reformation movement. 4. Varieties of Nationalism and remaking of states	Features of Bronze age culture IV.Martin Luther Calvin anabaptist,counter reformation. 4.Unification of Italy and Germany.Bolshevik Revolution 1917.Socialism in Russia	October	6,10,8
		Nomadic groups in Central and West Asia V.Economic development	Debate on the advent of iron and its implications V.Commercial revolution, price revolution,	November	9,8,10

		ts.VI.Monarchy. 5.Imperialism and war, 6. Europe between 2 world wars	agricultural revolution.National monarchy. 5.Causes of World War1 6. The great depression,Spanish civil war ,rise of Fascism and nazism		
--	--	---	--	--	--

## Teaching Plan

**Department: Department of History**

**Session: January to June 2021**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem2 (Hons)	cc4 Social Formations and Cultural Patterns of the Medieval world other than India	Group B Religion and culture in medieval Europe I. History of printing revolution . 1. The Cold War	Roman Catholic Church- foundation ,powers and organization I. Printing and military revolution. 1. Origins of Cold War	January	8,9, 6
CC Sem4 (Hons)	cc8 Rise of Modern West II(1,II,III,IV,V, VI)	II. 17th c V. Economic developments . 2. USA in world politics. 7. Emergence of People's Republic of China	Monasticism Carolingian Renaissance II. 17th c crisis, economic social and political dimensions V. Mercantilism. 2, Truman doctrine ,Marshall plan Nato. 7. China and USA	February- March	9,10.6
CC Sem6 (Hons)	cc14 History of world politics 1945-1994 (1-6)*	III. English Revolution VI. European politics. 3. USSR in world politic. 4. Manifestation of Cold war	12th c renaissance ,position of women III. Causes of English revolution, political and intellectual issues. VI. Absolutism and Parliamentary monarchy. 3. Molotov plan, comecon, Berlin blockade. Warsaw pact. 4. Cuban missile crisis and Korean War	April	9,9,8



		IV.Scientific revolution. 5.De -stalinization .6. Disintegratio n of Soviet Union	Urbanization and rise of Universities IV. Emergence of academies and Enlightenment. 5. Detente „thaw in cold war.6 End of cold war.Sini-Soviet relations, Bipolar to Unipolar politics	May	8,9,8

## Teaching Plan

**Department: Department of History**

**Session: July - December 2021**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC sem1 hons	cc2 Social Formations and Cultural patterns of the ancient world other than India	Evolution of human kind I.Feudalism II.Voyages of discovery 1. The French Revolution*	Paleolithic and Mesolithic Cultures I.Transition debate II. Motives and Portuguese and Spanish voyages of discovery 1. Napoleon consolidations*	July	7, 9,9
CC Sem 3	cc6 Rise of the Modern west-1 (1,II.III,IV,V, VI )	Food and production III.Renaissan ce 2.Restoration and revolution *	Beginnings of agriculture and animal husbandry III. Renaissance humanism, classics, impact on art architecture music,spread. 2.Metternich, important social ,political and intellectual trends*	August- Septem ber	9,10,5

CC Sem 5	cc11 History of Modern Europe 1780-1939 (1-6)*	3. Capitalist industrialization, social economic transformations.. upto 1914	3.Industrialization of Britain France Germany and Russia. Differentiation of social classes	September	6
		Bronze age Civilization IV.Reformation movement. 4. Varieties of Nationalism and remaking of states	Features of Bronze age culture IV.Martin Luther Calvin anabaptist,counter reformation. 4.Unification of Italy and Germany.Bolshevik Revolution 1917.Socialism in Russia	October	6,10,8
		Nomadic groups in Central and West Asia V.Economic development	Debate on the advent of iron and its implications V.Commercial revolution, price revolution,	November	9,8,10

		ts.VI.Monarchy. 5.Imperialism and war, 6. Europe between 2 world wars	agricultural revolution.National monarchy. 5.Causes of World War1 6. The great depression,Spanish civil war ,rise of Fascism and nazism		
--	--	---	--	--	--

## Teaching Plan

**Department: Department of History**

**Session: January to June 2022**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem2 (Hons)	cc4 Social Formations and Cultural Patterns of the Medieval world other than India	Group B Religion and culture in medieval Europe I. History of printing revolution . 1. The Cold War	Roman Catholic Church- foundation ,powers and organization I. Printing and military revolution. 1. Origins of Cold War	January	8,9, 6
CC Sem4 (Hons)	cc8 Rise of Modern West II(1,II,III,IV,V, VI)	II. 17th c V. Economic developments . 2. USA in world politics. 7. Emergence of People's Republic of China	Monasticism Carolingian Renaissance II. 17th c crisis, economic social and political dimensions V. Mercantilism. 2, Truman doctrine ,Marshall plan Nato. 7. China and USA	February- March	9,10.6
CC Sem6 (Hons)	cc14 History of world politics 1945-1994 (1-6)*	III. English Revolution VI. European politics. 3. USSR in world politic. 4. Manifestation of Cold war	12th c renaissance ,position of women III. Causes of English revolution, political and intellectual issues. VI. Absolutism and Parliamentary monarchy. 3. Molotov plan, comecon, Berlin blockade. Warsaw pact. 4. Cuban missile crisis and Korean War	April	9,9,8

		IV.Scientific revolution. 5.De -stalinization .6. Disintegratio n of Soviet Union	Urbanization and rise of Universities IV. Emergence of academies and Enlightenment. 5. Detente „thaw in cold war.6 End of cold war.Sini-Soviet relations, Bipolar to Unipolar politics	May	8,9,8

## Teaching Plan

**Department: Department of History**

**Session: July 2022- Dec 2022**

**Name of the teacher: Dr Suparna Bhattacharyya**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	cc2 Social Formations and Cultural patterns of the ancient world other than India	Evolution of human kind I.Feudalism II.Voyages of discovery 1. The French Revolution*	Paleolithic and Mesolithic Cultures I.Transition debate II. Motives and Portuguese and Spanish voyages of discovery 1. Napoleon consolidations*	July	7, 9,9
CC	cc6 Rise of the Modern west-1 (1,II.III,IV,V, VI )	Food and production III.Renaissan ce 2.Restoration and revolution *	Beginnings of agriculture and animal husbandry III. Renaissance humanism, classics, impact on art architecture music,spread. 2.Metternich, important social ,political and intellectual trends*	August- Septem ber	9,10,5

	cc11 History of Modern Europe 1780-1939 (1-6)*	3. Capitalist industrialization, social economic transformations.. upto 1914	3.Industrialization of Britain France Germany and Russia. Differentiation of social classes	September	6
		Bronze age Civilization IV.Reformation movement. 4. Varieties of Nationalism and remaking of states	Features of Bronze age culture IV.Martin Luther Calvin anabaptist,counter reformation. 4.Unification of Italy and Germany.Bolshevik Revolution 1917.Socialism in Russia	October	6,10,8
		Nomadic groups in Central and West Asia V.Economic development	Debate on the advent of iron and its implications V.Commercial revolution, price revolution,	November	9,8,10



		ts.VI.Monarchy. 5.Imperialism and war, 6. Europe between 2 world wars	agricultural revolution.National monarchy. 5.Causes of World War1 6. The great depression,Spanish civil war ,rise of Fascism and nazism		
--	--	---	--	--	--

## Teaching Plan

## Department:History

**Session: July -December 2018**

**Name of the teacher: Prof. Bonobehari Mandal**

[illegible]

## Teaching Plan

**Department:History**

**Session:January -June 2019**

**Name of the teacher: Prof.Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2 (Hons)	cc3- History of India C 300BC-750 BCE	II. Changing Political formations 300BCE- CE300	1.The Mauryan Empire	January	8
			2.Kushanas	February	10
			3.Satavahanas.	March	9
			4.Guptas	April	11
			5.Post- Guptas	May	
CC					

# Teaching Plan

**Department:History**

**Session:July -December 2019**

**Name of the teacher: Prof. Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-Se ptembe r.	14
				August- Novem ber	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-Se ptembe r	13
				August	11
				Octobe r Novem ber	8

## Teaching Plan

**Department: Department of History**

**Session: January to June 2020**

**Name of the teacher: Prof. Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE) CC	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem2 (Hons)	cc4 Social Formations and Cultural Patterns of the Medieval world other than India	Group B Religion and culture in medieval Europe I. History of printing revolution .	Roman Catholic Church- foundation ,powers and organization I.Printing and military revolution	January	8-9,  12
CC Sem4 (Hons)	cc8 Rise of Modern West II(1,II,III,IV,V, VI)	II. 17th c V.Economic development s . III. Scientific development and Enlightenment	Monasticism Carolingian Renaissance II.17th c crisis,economic social and political dimension. Mercantalism Scientific Revolution	Februar y- March  April  May	9-10. 6 9  11  12

## Teaching Plan

**Department:History**

**Session:July -December 2020**

**Name of the teacher: Prof. Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-Se ptembe r.	14
				August- Novem ber	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-Se ptembe r	13
				August	11
				Octobe r Novem ber	8
CC Sem5 (Hons)	cc12 History of India 1750s -1857	II.Expansio n and consolidatio n of colonial power VI, Popular uprisings	1. Conquest of Bengal 2. Santhal 3.Indigo 4. Pabna uprisings	July-Au gust	12
				Septem ber-No vember	16 10
	DSE-A1	Bengal	1.Plassey to Buxar 2. Sanyasi,Fakir rebellion.Pabna and Indigo 3.Partition of Bengal	July	8
				August- Ocober	12
				Novem ber	9

## Teaching Plan

**Department:History**

**Session:January to June 2021**

**Name of the teacher: Dr Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2	cc3 History of India 300 BCE-750 CE	1. Economy and society 3. Early medieval India 4. Religion philosophy society 5.Cultural developmen ts	Agrarian economy Urbanization and trade Social stratification  Theistic cults  Literature,art and architecture	Januar y-	10
				Februar y	11
				March	9
				April	10
				April	
	cc4 Social formations and cultural patterns of the Medieval world other than India	Group B V. The Feudal Society	Historiography	Februar y - April	15
CC sem4 Hons	cc 10 History of India 1605-1750s	1Sources 2 Political Culture 3.Aurangzeb 4.Visual Culture 5. Regional politics 6. Trade and commerce	Persian and Vernacular sources Mansabdari and Jagirdari systems Paintings and Architecture Rajputs and Marathas. Decline of empire Indian Ocean trade	January	8
				Februar y	12
				March	12
				April	10
				May	11
CC sem6 Hons	cc13 History of India 1857-1964	1Cultural changes and social and religious movements 2.Nationalis m	Brahmo samaj Ramkrishna Vivekananda Swadeshi movement Revolutionaries	January	9
				Februar y	13
					8

		3.Gandhian nationalism 4.Independence and partition 5.Emergence of a new state	Non co-operation Civil disobedience movement Partition riots Popular movements Land reforms planning Nehru era	March  April  May	10  11  9
CC	DSE-B3	Partition	Impact of Partition Working class movement Role of Press	February -May	20



## Teaching Plan

**Department:** History

**Session July-December 2021**

**Name of the teacher:** Dr Bonobehari Mandal

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1(Hons)	cc1 History of India from the earliest times to C 300BCE	I.Reconstructing Ancient Indian History	Notions of History Sources of History Historiography	July-August	16
		II. Hunter-gatherers and the advent of food products	Paleolithic Mesolithic Neolithic Cultures	September - November	14
CC Sem 3 Hons	cc7 History of India 1206-1526	1. Interpreting the Delhi Sultanate 2 Sultanate political structure 3.Society and economy 4. Religion and culture	Sources	July	8
			Foundation	August-September	11
			Provincial dynasties Art Architecture literature	October-November	15

## Teaching Plan

**Department:History**

**Session:January to June 2022**

**Name of the teacher: Dr Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2	cc3 History of India 300 BCE-750 CE	1. Economy and society 3. Early medieval India 4. Religion philosophy society 5.Cultural developmen ts	Agrarian economy Urbanization and trade Social stratification  Theistic cults  Literature,art and architecture	January-	10
				February	11
				March	9
				April	10
				April	
	cc4 Social formations and cultural patterns of the Medieval world other than India	Group B V. The Feudal Society	Historiography	February - April	15
CC sem4 Hons	cc 10 History of India 1605-1750s	1 Sources 2 Political Culture 3.Aurangzeb 4.Visual Culture 5. Regional politics 6. Trade and commerce	Persian and Vernacular sources Mansabdari and Jagirdari systems Paintings and Architecture Rajputs and Marathas. Decline of empire Indian Ocean trade	January	8
				February	12
				March	12
				April	10
				May	11
CC sem6 Hons	cc13 History of India 1857-1964	1 Cultural changes and social and religious movements 2.Nationalis m	Brahmo samaj Ramkrishna Vivekananda Swadeshi movement Revolutionaries	January	9
				February	13
					8

		3.Gandhian nationalism 4.Independence and partition 5.Emergence of a new state	Non co-operation Civil disobedience movement Partition riots Popular movements Land reforms planning Nehru era	March  April  May	10  11  9
CC Hons	DSE-B3	1.Partition	Impact of Partition Working class movement Role of Press	February -May	20

## Teaching Plan

**Department:History**

**Session:July -December 2022**

**Name of the teacher: Dr. Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 1 (Hons)	cc1 -History of India from the earliest times to C 300BCE	III.The Harappan civilization. IV.Cultures in transition	III. The Harappan Culture. IV. The Aryan Civilization	July-Se ptembe r.	14
				August- Novem ber	16
CC Sem3 (Hons)	cc5- History of India CE 750-1206	I. Studying early Medieval India II. Political structures	I. Debates on Indian Feudalism Rise of the Rajputs II.The Tripartite struggle The Cholas Arab conquest of Sindh	July-Se ptembe r	13
				August	11
				Octobe r Novem ber	8
CC Sem5 (Hons)	cc12 History of India 1750s -1857	II.Expansio n and consolidatio n of colonial power VI, Popular uprisings	1. Conquest of Bengal 2. Santhal 3.Indigo 4. Pabna uprisings	July-Au gust	12
				Septem ber-No vember	16 10
	DSE-A1	Bengal	1.Plassey to Buxar 2. Sanyasi,Fakir rebellion.Pabna and Indigo 3.Partition of Bengal	July	8
				August- Ocober	12
				Novem ber	9

## Teaching Plan

**Department:History**

**Session:January to June 2023**

**Name of the teacher: Dr Bonobehari Mandal**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC Sem 2	cc3 History of India 300 BCE-750 CE	1. Economy and society 3. Early medieval India 4. Religion philosophy society 5.Cultural developmen ts	Agrarian economy Urbanization and trade Social stratification  Theistic cults  Literature,art and architecture	January-	10
				February	11
				March	9
				April	10
				April	
	cc4 Social formations and cultural patterns of the Medieval world other than India	Group B V. The Feudal Society	Historiography	February - April	15
CC sem4 Hons	cc 10 History of India 1605-1750s	1 Sources 2 Political Culture 3.Aurangzeb 4.Visual Culture 5. Regional politics 6. Trade and commerce	Persian and Vernacular sources Mansabdari and Jagirdari systems Paintings and Architecture Rajputs and Marathas. Decline of empire Indian Ocean trade	January	8
				February	12
				March	12
				April	10
				May	11
CC sem6 Hons	cc13 History of India 1857-1964	1 Cultural changes and social and religious movements 2.Nationalis m	Brahmo samaj Ramkrishna Vivekananda Swadeshi movement Revolutionaries	January	9
				February	13
					8

		3.Gandhian nationalism 4.Independence and partition 5.Emergence of a new state	Non co-operation Civil disobedience movement Partition riots Popular movements Land reforms planning Nehru era	March  April  May	10  11  9
CC Hons	DSE-B3	1.Partition	Impact of Partition Working class movement Role of Press	February -May	20

## Teaching Plan

**Department: HINDI**

**Session: (ODD SEMESTER)**

**Name of the teacher: JYOTSANA PANDEY**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1	AADIKAL	AADIKAL KA SAMANYA PARICHAY, AADIKAL KI PRAVRITIYAN	SEP- OCT	8
			SIDDHA SAHITYA	NOV	2
			NATHA SAHITYA	NOV	2
			JAIN SAHITYA	NOV	2
			RASON KAVYA	NOV- DEC	8
			LAUKIK SAHITYA	DEC	2
CC	CC6	DWANI SIDHINT	DWANI KI AWADHARANA	AUG	3
			DWANI KA VARGIKARAN	AUG- SEP	3
		ALANKAR SIDHANT	ALANKAR KI AWADHARANA	SEP	2
			ALANKAR AUR ALANKARYA	SEP	1
			ALANKARON KA VARGIKARAN	SEP	4
			ALANKAR SIDHANT AUR ANYA SAMPRADAY	SEP	2
		RITI SIDHANT	RITI KI AWADHARNA	SEP	2
			RITI AWAM GUN	OCT	2
			RITI KA VARGIKARAN	NOV	2
		VAKROKTI SIDDHANT	VAKROKTI KI AWADHARNA	NOV	2

			VAKROKTI KA VARGIKARAN	NOV	2
			VAKROKTI AUR ABHIVANJANA WAD	NOV	1
		AUCHITYA SIDDHANT	AUCHITYAKI AWADHARANA	NOV	2
		HINDI KAVYA SHASHTRA KA ITIHAS	SAMANYA PARICHAY	NOV	3
CC	CC11	NATAK	AASHADH KA EK DIN	AUG-OCT	15
		EKANKI	VISHKANYA	NOV	3
	CC12	NIBANDH	MERE RAM KA MUKUT BHIG RAHA HAI	NOV	5
		SASSMARAN	DADA SWRGIYA BAL KRISHNA SHARMA NAVIN	NOV	5
GE	GE1	HINDI SAHITYA KA ITIHAS	KALVIBHAJAN AUR NAMKARAN	SEP	2
			SIDDHA SAHITYA	SEP	1
			NATH SAHITYA	SEP	1
			JAIN SAHITYA	SEP	1
			RASON SAHITYA	OCT-NOV	5
			AADIKALEEN HINDISAHITYA KI SAMANYA VISHESHATAYEN	DEC	3
AECC	AECC1	NIBANDH	NAKHUN KYON BADHATE HAI	SEP	1
			GHEESA	SEP	1
			PARYAVARAN SANRAKHAN	SEP	1
			DHUMKETU	SEP	1
		KAVITAYEN	BITI VIBHAWARI JAG RI	OCT	1
			PAITRIK SAMPATTI	NOV	1



			UNAKO PRANAM	NOV	1
			HO GAYIHAI PEER PARWAT SI	NOV	1
			DHARMIK DANGON KI RAJNITI	NOV	1
		KAHANIYA N	MANTRA	DEC	1
			BHOLARAM KA JEEV	DEC	1
			TRISHANKU	DEC	1
			PALI	DEC	1

## Teaching Plan

**Department: HINDI**

**Session: (EVEN SEM.)**

**Name of the teacher: JYOTSANA PANDEY**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC3	AADIKALE EN AUR MADYAKA LEEN HINDI KAVITA	BIHARI KE DOHE	MARC H	6
			JAYASI – MANSARODAK KHAND	APRIL	5
			GHANANAND KE PAD	APRIL- MAY	4
			RASKHAN KE SAWAIYE	MAY	4
			RAHIM KE DOHE	JUNE	6
CC	CC8	BHASHA VIGYAN EWAM HINDI BHASHA	BHASHA	FEB	8
			BHASHA VIGYAN	MARC H	4
			SWANIM VIGYAN	MARC H	6
			RUPIM VIGYAN	MAR- APRIL	4
			WAKYA VIGYAN	APRIL	4
			ARTHA VIGYAN	APRIL	5
			BOLIYON KA SAMANYA PARICHAY	MAY	4
			RASHTRA BHASHA,RAJ BHASHA EWAM SAMPARKBHAS HA KE ROOP ME HINDI	MAY	4

			DEVNAGARI LIPI KI VISHESHTAYEN EWAM SUDHAR KE PRAYAS	MEY	2
CC	CC14	PRAYOJAN MULAK HINDI	POINT NO. 1	FEB	8
			POINT NO. 2	MAR	4
			POINT NO. 3	MAR	5
			POINT NO.4	MAR	5
			POINT NO.5	MAR	3
			POINT NO. 6	APRIL	2
			POINT NO. 7	APRIL	2
			POINT NO.8	APRIL	5
			POINT NO. 9	APRIL- MAY	7
			POINT NO.10	MAY	3
GE	GE4	KAHANI	NAMAK KA DAROGA	MAR	2
			AAKASHDEEP	MAR - APRIL	4
			PARADA	MAY	2
			WAPASI	MAY	2
LCC	LCC2(SEM4)	HINDI VYAKARA N AUR SAMPRISH AN	POINT NO. 1	MARC H	2
			POINT NO. 2	MAR	4
			PALLWAN EWAM SANKHEPAN	APRIL	2
			POINT NO 5	APRIL	2
			POINT NO.6	MAY	1
			POINT NO.7	MAY	1
			POINT NO 8	MAY	1
			POINT NO.9	MAY- JUNE	4
			POINT NO 10	JUNE	3

## Teaching Plan

**Department: HINDI**

**Session: (ODD SEMESTER)**

**Name of the teacher: ADITYA KUMAR GIRI**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1	BHAKTIKA L	BHAKTIKAL: SAMANYA PARICHAY, PRAMUKH PRAVRITIYAN	SEP- OCT	8
			SANT SAHITYA	NOV	2
			SUFI SAHITYA	NOV	2
			RAMKAVYA	NOV	2
			KRISHNAKAVY A	NOV- DEC	8
		RITIKAL	SAMANY PARICHAY, PRAMUKH PRAVRITIYAN	DEC	2
			RITIBADDHA		1
			RITIMUKTA		1
			RITISIDDHA		1
CC	CC6	BHARTIYA KAVYASH ASTRA	KAVYA LAKSHAN	AUG	3
			KAVYA HETU	AUG- SEP	3
			KAVYA PRAYOJAN	SEP	2
		RASA SIDDHANT A	RASA KI AVDHARNA	SEP	1
			RASA NISHPATTI	SEP	4
			RASA KA SADHARANIKAR AN	SEP	2
	CC7	PASHCHAT YA KAVYASH	NAI SAMIKSHA	NOV	2

		ASTRA			
			MARXWAADI SAMIKSHA	SEP	2
			SHASTRIYTAWA AD	OCT	2
			SVCHCHHANDT AWAAD	NOV	2
			YATHARTHWAA D	NOV	2
			SHAILI VIGYAN	NOV	2
			ADHUNIKTA	NOV	2
			UTTAR ADHUNIKTA EVAM AUPNIVESHIKT A	NOV	3
			SANRACHNAWA AD	NOV	2
			UTTAR SANRCHNAWAA D	NOV	3
CC	CC11	NATAK	SKANDGUPTA	AUG- OCT	15
		EKANKI	AURANGZEB KI AKHIRI RAAT	NOV	5
	CC12	NIBANDH	MAJDOORI AUR PREM	NOV	2
			KARUNA	NOV	2
CC	SEC	SAHITYA AUR HINDI CINEMA	CINEMA AUR SAMAJ: VISHVA MEIN CINEMA KA UDAI, MADHYAVARG A, ADHUNIKTA AUR CINEMA	SEP	4
			MANORANJAN MADHYAMON KA JANTANTRIKAR AN AUR CINEMA, CINEMA AUR SAMAJ, CINEMA KI SAMAJIK BHUMIKA,	OCT	4

			CINEMA:KALA YA MANORANJAN, MANORANJAN MADHYAMON KI RAJNITI, SAHITYA AUR CINEMA, PRAMUKH SINE SIDDHANTA		
			CINEMA KA TAKNIKI PAKSHA: FILM NIRMAN KI PRAKRIYA, CINEMA: SRIJAN KI SAMUHIKTA, CINEMA KI BHASHA, NIRDESHAN, PATKATHA, CHHAYANKAN, SINE SANGEET, ABHINAY AUR SAMPADAN, CENCOR BOARD, CINEMA KA VITARAN AUR VYAVSAY, CINEMAGHAR	NOV	4
			HINDI CINEMA SANKSHIPT ITIHAS: PRARAMBHIK DAUR KE CINEMA, SVATANTRTA ANDOLAN AUR HINDI CINEMA, BHARTIYA MADHYAVARG AUR HINDI CINEMA, BHARTIYE LOKTANTRA AUR HINDI CINEMA,	NOV	4

			CINEMA MEIN BHARTIYA SAMAJ KA YATHARTHA, CINEMAI YATHARTHWAD AUR SAMANANTAR CINEMA, BHUMANDLIKA RAN BAZARWAD AUR HINDI CINEMA, BAAL FILMEN, TAKNIKI KRANTI AUR HINDI CINEMA		
			SAHITYA AUR CINEMA: ANTASSAMBAN DHA, CINEMA AUR UPNYAS, SANVEDNA KA ROOPANTARAN AUR TAKNIK	NOV	5
			FILM SAMIKSHA	NOV	3
			AARAMBHA SE 1947: RAJA HARISHCHANDR A, ACHHOOT KANYA, ANMEL GHADI, DEVDAS	DEC	5
			1947-1970: MOTHER INDIA, DO ANKHEIN BARAH HATH, TISRI KASAM, NAYA DAUR,	DEC	5
			1970-1990:GARM HAVA, BOBBY, SHOLEY, ANDHI	DEC	4
			1990 SE ADYATAN: TAARE ZAMEEN PAR, THREE IDIOTS,	DEC	5

			DILWALE DULHANIYAN LE JAYENGE., MUNNA BHAI MBBS, PAAN SINGH TOMAR, MARRY KOM		
--	--	--	--	--	--



## Teaching Plan

**Department: HINDI**

**Session:(EVEN SEM.)**

**Name of the teacher: ADITYA KUMAR GIRI**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC3	AADIKALE EN AUR MADYAKA LEEN HINDI KAVITA	VIDYAPATI	MARC H	6
			KABIR	APRIL	5
			SOORDAS	APRIL- MAY	4
			TULSIDAS	MAY	4
			RAHIM KE DOHE	JUNE	6
CC	SEC	ANUWAD: SIDDHANT AUR PRAVIDHI	ANUWAD KA ARTHA: SWAROOP EVAM PRAKRITI	FEB	4
			ANUWAD KARYA KI AVSHYKTA EVAM MHATTVA	MARC H	4
			BAHUSAMAJI SAMAJ MEIN PARIVARATAN TATHA BAUDDHIK- SANSKRITIK ADAN-PRADAN MEIN ANUWAD KARYA KI BHUMIKA	MARC H	4
			ANUWAD KE PRAKAR: VISHLESHAN, ANTRAN EVAM PUNARGATHAN	APRIL	2
			ANUWAD KI BHUMIKA KE	APRIL	2

			TIN PAKSHA- PATHAK KI BHUMIKA(ARTH AGRAHAN KR), DWIBHASHIK KI BHUMIKA(ARTH ANTARAN KI PRAKRIYA), RACHAITA KI BHUMIKA(ARTH A SAMPRESHAN KI PRAKRIYA)		
			SARJNATMK SAHITYA KE ANUWAD KI APEKSHAYEIN  SARJNATMKA SAHITYA KE ANUWAD AUR TAKNIKI ANUWAD MEIN ANTAR	APRIL	4
			GADYANUWAD EVAM KAVYANUWAD MEIN SANRCHNATMK BHED  KINHIN DO ANUDIT KRITIYON KA SAMIKSHATMK A ADHYAN  GITANJALI (RAVINDRANAT H THAKUR/HANS KUMAR TIWARY) VISHVAPRAPAN CH(HEGEL/ACH ATYA RAMCHANDRA SHUKLA)	MAY	6

			KARYALAYI ANUWAD	MAY	4
			RAJBHASHA NITI KI ANUPALNA MEIN DHARA 3(3) KE ANATRGAT NIRDHARIT DASTAVEJ KA ANUWAD	MAY	5
			SHASKIYE PATRA		1
			ARADHA SHASKIYA PATRA		1
			PARIPATRA		1
			GYAPAN		1
			KARYALAYI ADESH		1
			ADHISOOCHNA		1
			SANKALPA PRASTAV		1
			NIVIDA- SANVIDA		1
			VIGYAPAN		2
			PARIBHASHIK SHABDAWALI		
CC	CC9	KAHANI	USNE KAHA THA	FEB	8
			POOS KI RAAT	MAR	4
			AKASHDEEP	MAR	5
			HAAR KI JEET	MAR	5
			PARINDE	MAR	3
CC	CC10	UPNYAS	MANAS KA HANS	MAR	2
			MRIGNAYANI	MAR - APRIL	4
			TYAGPATRA	MAY	2
DSE		TULSIDAS	RAMCHARITMA		22

			NAS		
			KAVITAVALI		12
			GEETAVALI		10
			VINAY PATRIKA		12
LCC	LCC2(SEM6)	HINDI BHASHA AUR SAMPRES HAN	BHASHA KI PARIBHASHA, PRAKRITI EVAM PRAVIDHI	MARC H	2
			HINDI BHASHA KI VISHESHTAYEIN : KRIYA, VIBHKTI, SARVNAM, VISHESHAN, AVAYAV	MAR	4
			HINDI KI VARNA VYVSTHA: SVRA EVAM VYANJANA	APRIL	2
			SVRA KE PRAKAR: HRASVA, DIRGHA TATHA SANYUKTA	APRIL	2
			VYANJNA KE PRAKAR: SPARSH, ANTASTH, MOORDDHANY A, DANTYA, OSHTHYA, DANTOSHTTHY A	MAY	4
			BALAGHAT, SANGAM, ANUTAN TATHA SANDHI	MAY	3
			BHASHA SAMPRESHAN KE CHARAN: SHRAVAN, ABHIVYAKTI, VACHAN TATHA	MAY	3

			LEKHAN		
			HINDI VAKYA RACHNA, VAKYA TATHA UPVAKYA, VAKYA BHED TATHA VAKYA KA ROOPANTARAN	MAY- JUNE	4
			BHAVARTHA AUR VYAKHYA	JUNE	3
			AASHAYA LEKHAN		2
			VIVIDH PRAKAR KE PATRA LEKHAN		2

## Teaching Plan

**Department: HINDI**

**Session: ODD SEM**

**Name of the Teacher: Dr. SARADA BANERJEE**

Course type (CC/GE/SEC/AECC/DS E)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC-2	HINDI SAHITYA KA ITIHAAS (ADHUNIK KAAL)	CHHAYAVAAD	SEP-OCT	8
			PRAGATIVAAD	NOV	6
			PRAYOGVAAD	NOV	5
			NAYI KAVITA	NOV-DEC	3
			SAMKALEEN KAVITA	DEC	2
CC	CC-5	CHHAYAVADO TTAR HINDI KAVITA	KEDARNATH AGRAWAL	AUG	6
			NAGARJUN	AUG-SEP	8
			RAGHUVIR SAHAY	SEP	5
			SARVESHWAR DAYAL SAXENA	OCT-NOV	6
			BHAWANIPRASAD MISHRA	NOV	4
CC	CC-11	HINDI NATAK	MADHAVI	AUG-OCT	10
		EKANKI	AUR WHO JA NA SAKI	OCT-NOV	2
	CC-12	HINDI NIBANDH EVAM ANYA GADYA VIDHAEN	DEVDAARU	NOV	2
			RAJIYA	NOV	1
			MERE RAM KA MUKUT BHEEG RAHA HAI	NOV	1

CC	DSE -B-1	CHHAYAVAAD	JAYSHANKAR PRASAD	SEP	4
			SURYAKANT TRIPATHI NIRALA	SEP-NOV	5
			SUMITRA NANDAN PANT	NOV	5
			MAHADEVI VERMA	NOV	5
GE	GE-3	ADHUNIK HINDI KAVITA	KAVI NIRALA	SEP	5
			AGNEYA	SEP-OCT	4
			NAGARJUN	NOV	5
AECC	AECC-1	NIBANDH	NAKHOON KYUN BADHTE HAIN	SEP	1
			GHEESA	SEP	1
			PARYAVARAN SANGRAKSHAN	SEP	1
			DHUMKETU	SEP	1
		KAVITAYEN	BEETI VIBHAVARI JAAG RI	OCT	
			PAITRIK SAMPATTI	OCT	1
			UNKO PRANAAM	NOV	1
			HO GAYI HAI PEER PARVAT SI	NOV	1
			DHARMIK DANGON KI RAAJNEETI	NOV	1
		KAHANIYAN	MANTRA	DEC	1
			BHOLARAM KA JEEV	DEC	1
			TRISHANKU	DEC	1
			PALI	DEC	1
			PARIBHASHIK SHABDAVALI	DEC	1

## Teaching Plan

**Department: HINDI**

**Session: EVEN**

**Name of the Teacher: Dr. SARADA BANERJEE**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC-4	ADHUNIK HINDI KAVITA	JAYSHANKAR PRASAD	MARCH	5
			SURYAKANT TRIPATHI NIRALA	APRIL	5
			SUMITRA NANDAN PANT	APRIL- MAY	5
			MAHADEVI VERMA	MAY- JUNE	6
CC	CC-9	HINDI UPANYAS	GABAN	FEB	6
			TYAGPATRA	MARCH	4
			MAHABHOJ	MARCH	5
	CC-10	HINDI KAHANI	DOPAHAR KA BHOJAN	MARCH	1
			SIKKA BADAL GAYA	MAR- APRIL	1
			PAAJEB	APRIL	1
			TEESRI KASAM	APRIL	1
			MISS PAL	MAY	2
			PITA	MAY	1
CC	CC-13	HINDI KI SAHITYIK PATRAKARITA	SAHITYIK PATRAKARITA	FEB	2
			BHARATENDU YUGEN PATRAKARITA	MARCH	3
			DWIVEDI YUGEN PATRAKARITA	MARCH	3
			PREMCHAND AUR CHHAYAVAAD YUGEN PATRAKARITA	MARCH	3
			SWATANTRAYOTT AR SAHITYIK PATRAKARITA	APRIL	3



			SAMKALEEN PATRAKARITA	APRIL	2
			SAHITYIK PATRAKARITA ME ANUVAAD KI BHUMIKA	APRIL- MAY	2
			PATRA- PATRIKAYEN	MAY	5
CC	DSE-B-2	PREMCHAND	SAHITYA KA UDDESHYA	MARCH	4
			KAHANIYAN	MARCH	5
			KARBALA	APRIL	2
			SEVASADAN	MAY	3
GE	GE-2	MADHYAKALE -EN HINDI KAVITA	KABIR	MARCH	3
			SURDAAS	MARCH	3
			TULSIDAS	MARCH- APRIL	3
			MEERABAI	APRIL	3
			RASKHAAN	APRIL- MAY	2
			BIHAARI	MAY	2

## Teaching Plan (Even Semester)

**Department: Mathematics**

**Name of the teacher: Dr. Anindita Basu**

Course type (CC/ GE/SEC/AE CC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC3 (Sem2)	Real Analysis	Unit-2	Real Sequence, Bounded Sequence, Convergence and non-convergence, Example, Boundedness of convergent sequence, Uniqueness of limit, Algebra of limits, and convergence Relation between the limit point of a set and the limit of a convergent sequence of distinct elements. Monotone sequences and their convergence. Sandwich rule. Nested interval theorem, Some important sequences. Cauchy's First and second limit theorem Subsequence, Subsequential limits, Lim sup, Lim inf of the subsequential limits. Monotone convergence theorems. Bolzano- Weirstrass Theorem for sequencew. Cauchy convergence	February	14
CC8 (Sem4)	Riemann Integration & Series of Functions	Unit-I	Riemann Integration, Partition and refinement of partition of a closed bounded interval. Upper Darboux's sum $U(P,f)$ and lower Darboux sum $L(P,f)$ and associated results. Upper integral and lower integral. Darboux's	March	8

			<p>definition of integrability.</p> <p>Concept of negligible set,</p> <p>Examples of negligible set,</p> <p>relation between a bounded function on closed and bounded function is</p> <p>Riemann Integration if and only if the set of discontinuity is negligible.</p> <p>Integrability of sum, scalar multiple, product, quotient, modulus of Riemann integral function. Properties of Riemann integration.</p> <p>Definite integral and its property.</p> <p>Logarithmic function and definite integral.</p>		
SECB	Mathematical Logic	Unit-1, 2 & 3	<p>Introduction, proposition, truth table, negation, conjunction, disjunction,, Implication, biconditional proposition, converse, contra positive and inverse propositions and precedence of logical operators, Formal Language, object and meta language, general definition of a Formal Theory.</p> <p>Propositional Logic, Predicate Logic</p>	April	8
CC13	Metric Space & Complex Analysis	Unit-1	<p>Metric Space, Definition and examples of metric spaces. Open ball, open set, Closed set, complement of open set, interior point, Limit point, closure of a set, Boundary point, Subspace of a metric space.</p> <p>Convergent sequence, Cauchy Sequence, Every convergent sequence is Cauchy and bounded, but the converse is not true.</p>	May	12

			Completeness, Cantor's intersection theorem, continuous mapping, uniform continuity, Compactness, sequential compactness, Heine-Borel theorem in $\mathbb{R}$ . Finite intersection property, concept of connectedness and some example. Contraction mapping. Banach Fixed Point Theorem and its application		
--	--	--	--	--	--

## Teaching Plan (Odd Semester)

**Department: Mathematics**

**Name of the teacher: Dr. Anindita Basu**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC2	Algebra	Unit-3	Rank of a matrix, inverse of a matrix, characterization of invertible matrices. Systems of linear equation, row reduction and echelon forms. Vector equations, the matrix equation $AX=B$ , system of linear equations, Solution sets of linear systems, application of linear systems	August	8
CC5	Theory of Real Functions	Unit-I	Limit and continuity of a function on an interval, epsilon-delta definition, sequential criterion for limits, Algebra of limits for functions, continuity of a function. On an interval, Algebra of continuous function, Examples, Bounded Functions, neighbourhood property of continuous function, continuous function on $[a, b]$ attains its bounds, Discontinuity	September	12

			of functions. Type of discontinuity, Uniform continuity		
CC12	Group Theory-II & Linear Algebra-II	Unit-1 & 2	Automorphism, inner automorphism, applications of factor groups to automorphism groups. External Direct Product, group of unit modulo $n$ as an external direct products, internal direct product, Lagrange's theorem for finite abelian group, Fundamental Theorem of finite abelian groups.	November	12
DSE-A	Advanced Algebra	Unit-1 & 2	Group Theory & Ring Theory: Group Action, stabilizers, permutation representation associated with a given group action, Applications of group actions, Generalized Cayley's Theorem, Index Theorem, class equation and consequences conjugacy in $S_n$ , $p$ -groups, Sylow's Theorem, Cauchy's Theorem, Simplicity of alternative group; Principle Ideal domain, Principle ideal ring, prime element, irreducible element, greatest common divisor, least common multiple, Euclidean domain, relation between ED and PID Polynomial rings, division algorithm and consequences, Factorization Domain, Principle Ideal Domain, Unique Factorisation Domain, relation between PID and UFD, FD and ED. Eisenstein criterion and UFD in $\mathbb{Z}[x]$ . Ring Embedding and quotient field, regular rings and examples, properties of regular ring.	December	16

## Teaching Plan

**Department: Mathematics**

**Session: 2022-23**

**Name of the teacher: Dr. Amit Kumar Pal**

Course type (CC/ GE/SEC/AE CC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Probability & Statistics	MTMA-CC-5-11-TH	Unit 1	<ul style="list-style-type: none"> <li>Random experiment, <math>\Omega</math>-field, Sample space, probability as a set function, probability axioms, probability space. Finite sample spaces. Conditional probability, Bayes theorem, independence. Real random variables (discrete and continuous), cumulative distribution function, probability mass/density functions, mathematical expectation, moments, moment generating function, characteristic function. Discrete distributions : uniform, binomial, Poisson, geometric, negative binomial, Continuous distributions : uniform, normal, exponential.</li> </ul>	August	15
Probability & Statistics	MTMA-CC-5-11-TH	Unit 2	<ul style="list-style-type: none"> <li>Joint cumulative distribution function and its properties, joint probability density functions, marginal and conditional distributions, expectation of function of two random variables, moments, covariance, correlation coefficient, independent random variables, joint moment generating function (jmgf) and calculation of covariance from jmgf, characteristic function. Conditional expectations, linear regression for two variables, regression curves. Bivariate normal distribution.</li> </ul>	September	10
Probability & Statistics	MTMA-CC-5-11-TH	Unit 3	Markov and Chebyshev's inequality, Convergence in Probability, statement and interpretation of weak law of large numbers and strong law of large numbers. Central limit theorem for independent and identically distributed random variables with finite variance.	September	5
Probability & Statistics	MTMA-CC-5-11-TH	Unit 4	<ul style="list-style-type: none"> <li>Sampling and Sampling Distributions : Populations and Samples, Random Sample, distribution of the sample, Simple random sampling with and without replacement. Sample characteristics.</li> <li>Sampling Distributions : Statistic, Sample moments. Sample variance, Sampling from the normal distributions, Chi-square, <math>t</math> and <math>F</math>-distributions, sampling distribution of <math>\bar{X}</math>, <math>s^2</math>, <math>\frac{\sqrt{n}}{s}(\bar{X} - \mu)</math>.</li> <li>Estimation of parameters : Point estimation.</li> </ul>	October	15

			Interval Estimation- Confidence Intervals for mean and variance of Normal Population. Mean-squared error. Properties of good estimators - unbiasedness, consistency, sufficiency, Minimum-Variance Unbiased Estimator (MVUE). • Method of Maximum likelihood : likelihood function, ML estimators for discrete and continuous models.		
Probability & Statistics	MTMA-CC-5-11-TH	Unit 5	<ul style="list-style-type: none"> <li>Statistical hypothesis : Simple and composite hypotheses, null hypotheses, alternative hypotheses, onesided and two-sided hypotheses. The critical region and test statistic, type I error and type II error, level of significance. Power function of a test, most powerful test. The <math>p</math>-value (observed level of significance), Calculating <math>p</math>-values.</li> <li>Simple hypothesis versus simple alternative : Neyman-Pearson lemma (Statement only).</li> <li>Bivariate frequency Distribution : Bivariate data, Scatter diagram, Correlation, Linear Regression, principle of least squares and fitting of polynomials and exponential curves.</li> </ul>	November	15
Probability & Statistics	MTMA-CC-5-11-TH	Unit 5	<b>Graphical Demonstration</b> <ul style="list-style-type: none"> <li>Graphical representation of data - how to load data, plot a graph viz. histograms (equal class intervals and unequal class intervals), frequency polygon, pie chart, ogives with graphical summaries of data.</li> <li>Measures of central tendency and measures of dispersion ,moments, skewness and kurtosis.</li> <li>Karl Pearson correlation coefficient.</li> <li>Correlation coefficient for a bivariate frequency distribution.</li> <li>Lines of regression, angle between lines and estimated values of variables.</li> <li>Fitting of polynomials, exponential curves by method of least squares.</li> <li>Confidence interval for the parameters of a normal distribution (one sample and two sample problems).</li> </ul>	December	10
Bio-Mathematics	MTMA-DSE-A-5-1-TH	Unit 1	<ul style="list-style-type: none"> <li>Mathematical biology and the modeling process: an overview. Continuous models: Malthus model, logistic growth, Allee effect, Gompertz growth, Michaelis-Menten Kinetics, Holling type growth, bacterial growth in a chemostat, harvesting a single natural population, Prey predator systems and Lotka-Volterra equations, populations in competitions, epidemic models (SI, SIR, SIRS, SIC)</li> </ul>	August	20

Bio-Mathematics	MTMA-DSE-A-5-1-TH	Unit 2	<ul style="list-style-type: none"> <li>Activator-inhibitor system, insect outbreak model: Spruce Budworm. Numerical solution of the models and its graphical representation. Qualitative analysis of continuous models: Steady state solutions, stability and linearization, multiple species communities and Routh-Hurwitz Criteria. Phase plane methods and qualitative solutions, bifurcations and limit cycles with examples in the context of biological scenario.</li> </ul>	September	15
Bio-Mathematics	MTMA-DSE-A-5-1-TH	Unit 2	Spatial models: One species model with diffusion. Two species model with diffusion, conditions for diffusive instability, spreading colonies of microorganisms, Blood flow in circulatory system, travelling wave solutions, spread of genes in a population.	October	10
Bio-Mathematics	MTMA-DSE-A-5-1-TH	Unit 3	<ul style="list-style-type: none"> <li>Discrete models : Overview of difference equations, steady state solution and linear stability analysis. Introduction to discrete models, linear models, growth models, decay models, drug delivery problem, discrete prey-predator models, density dependent growth models with harvesting, host-parasitoid systems (Nicholson- Bailey model), numerical solution of the models and its graphical representation. case studies. Optimal exploitation models, models in genetics, stage structure models, age structure models.</li> </ul>	November	15
Bio-Mathematics	MTMA-DSE-A-5-1-TH	Unit 3	<b>Graphical Demonstration</b> <ul style="list-style-type: none"> <li>Growth model (exponential case only).</li> <li>Decay model (exponential case only).</li> <li>Lake pollution model (with constant/seasonal flow and pollution concentration).</li> <li>Case of single cold pill and a course of cold pills.</li> <li>Limited growth of population (with and without harvesting).</li> <li>Predatory-prey model (basic Volterra model, with density dependence, effect of DDT, two prey one predator).</li> <li>Epidemic model of influenza (basic epidemic model, contagious for life,disease with carriers).</li> <li>Battle model (basic battle model, jungle warfare, long range weapons).</li> </ul>	December	7
Ordinary Differential Equation	MTMA-CC-3-7-TH	Unit 1	<ul style="list-style-type: none"> <li>First order differential equations : Exact differential equations and integrating factors, special integrating factors and transformations, linear equations and Bernoulli equations, the existence and uniqueness theorem of Picard (Statement</li> </ul>	August	9



			only). • Linear equations and equations reducible to linear form. First order higher degree equations solvable for $x$ , $y$ and $p$ . Clairaut's equations and singular solution.		
Ordinary Differential Equation	MTMA-CC-3-7-TH	Unit 1	• Basic Theory of linear systems in normal form, homogeneous linear systems with constant coefficients: Two Equations in two unknown functions. • Linear differential equations of second order, Wronskian : its properties and applications, Euler equation, method of undetermined coefficients, method of variation of parameters.	September	9
Ordinary Differential Equation	MTMA-CC-3-7-TH	Unit 1	• System of linear differential equations, types of linear systems, differential operators, an operator method for linear systems with constant coefficients	October	5
Ordinary Differential Equation	MTMA-CC-3-7-TH	Unit 1	• Planar linear autonomous systems : Equilibrium (critical) points, Interpretation of the phase plane and phase portraits. • Power series solution of a differential equation about an ordinary point, solution about a regular singular point (up to second order).	November	9
Group Theory I	MTMA-CC-2-4-TH	Unit 2	• Properties of cyclic groups, classification of subgroups of cyclic groups. Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group	February	12
Group Theory I	MTMA-CC-2-4-TH	Unit 2	properties of cosets, order of an element, order of a group. Lagrange's theorem and consequences including Fermat's Little theorem	March	12
Group Theory I	MTMA-CC-2-4-TH	Unit 3	• Normal subgroup and its properties. Quotient group. Group homomorphisms, properties of homomorphisms, correspondence theorem and one one correspondence between the set of all normal subgroups of a group and the set of all congruences on that group	April	15
Group Theory I	MTMA-CC-2-4-TH	Unit 3	Cayley's theorem, properties of isomorphisms. First, Second and Third isomorphism theorems.	May	12
Partial Differential Equation	MTMA-CC-4-9-TH	Unit 1	• Partial differential equations of the first order, Lagrange's solution, non linear first order partial differential equations, Charpit's general method of solution, some special types of equations which can be solved easily by methods other than the general method.	February	12
Partial Differential Equation	MTMA-CC-4-9-TH	Unit 1	• Derivation of heat equation, wave equation and Laplace equation. Classification of second order linear equations as hyperbolic, parabolic or elliptic. Reduction of second order linear equations to canonical forms.	March	12

Partial Differential Equation	MTMA-CC-4-9-TH	Unit 1	<ul style="list-style-type: none"> <li>The Cauchy problem, Cauchy-Kowalewskaya theorem, Cauchy problem of finite and infinite string. Initial boundary value problems. Semi-infinite string with a fixed end, semi-infinite string with a free end. Equations with non-homogeneous boundary conditions.</li> </ul>	April	10
Partial Differential Equation	MTMA-CC-4-9-TH	Unit 1	Non-homogeneous wave equation. Method of separation of variables, solving the vibrating string problem. Solving the heat conduction problem.	May	8
Complex Analysis	MTMA-CC-6-13-TH	Unit 2	<ul style="list-style-type: none"> <li>Stereographic projection. Regions in the complex plane. Limits, limits involving the point at infinity. Continuity of functions of complex variable.</li> </ul>	February	9
Complex Analysis	MTMA-CC-6-13-TH	Unit 2	<ul style="list-style-type: none"> <li>Derivatives, differentiation formulas, Cauchy-Riemann equations, sufficient conditions for differentiability. Analytic functions, exponential function, logarithmic function, trigonometric functions, hyperbolic functions. M'obius transformation.</li> </ul>	March	12
Complex Analysis	MTMA-CC-6-13-TH	Unit 2	<ul style="list-style-type: none"> <li>Power series : Cauchy-Hadamard theorem. Determination of radius of convergence. Uniform and absolute convergence of power series. Analytic functions represented by power series. Uniqueness of power series.</li> </ul>	April	12
Complex Analysis	MTMA-CC-6-13-TH	Unit 2	<ul style="list-style-type: none"> <li>Contours, complex integration along a contour and its examples, upper bounds for moduli of contour integrals. Cauchy- Goursat theorem (statement only) and its consequences, Cauchy integral formula.</li> </ul>	May	12
Differential Equation II	MTM-G-GE-2-2-TH	Unit 2	<ul style="list-style-type: none"> <li>Linear homogeneous equations with constant coefficients, Linear non-homogeneous equations, The method of variation of parameters,</li> </ul>	February	4
Differential Equation II	MTM-G-GE-2-2-TH	Unit 2	The Cauchy-Euler equation , Simultaneous differential equations, Simple eigenvalue problem.	March	4
Differential Equation II	MTM-G-GE-2-2-TH	Unit 2	<ul style="list-style-type: none"> <li>Order and degree of partial differential equations, Concept of linear and non-linear partial differential equations, Formation of first order partial differential equations,</li> </ul>	April	4
Differential Equation II	MTM-G-GE-2-2-TH	Unit 2	Linear partial differential equation of first order, Lagrange's method, Charpit's method.	May	4

# Teaching Plan

**Department: Mathematics**

**Session: 2022-2023**

**Name of the teacher: Subrata Bhakta**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC10	MTMA-CC-4-10	Unit-3 Unit-4 Unit-5	Kinematics of a particle Newton laws of motion and law of gravitation Problems in particle dynamics Planar motion of a particle Motion of a particle in three dimensions The linear momentum principle The angular momentum principle The energy principle	February, March, April, May, June	45
CC14	MTMA-CC-6-14	Unit-1 Unit-2 Unit-3 Unit-4 Unit-5 Unit-6	Representation of real number and errors Interpolation Numerical differentiation and integration	February, March, April, May, June	55

			Solution of transcendental and algebraic equation Solution of system of linear equations Solution of ordinary differential equation		
DSEA2	MTMA-DSE-A-6-2	Unit-1 Unit-2	Power series solution of Bessel's and Legendre's equation Laplace transform and inverse transform Monte Carlo simulation modelling Generating random numbers Queuing theory Linear programming problems	February, March, April, May, June	75

## Teaching Plan

**Department: Mathematics**

**Session: 2022-23**

**Name of the teacher: Dr. Amit Sarkar**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	Hyperbolic functions, higher order derivatives, Leibnitz rule and its applications to problems of type $eax+b \sin x$ , $eax+b \cos x$ , $(ax+b)^n \sin x$ , $(ax+b)^n \cos x$	August	9
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	curvature, concavity and points of inflection, envelopes, rectilinear asymptotes (Cartesian & parametric form only)	September	6
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	curve tracing in Cartesian coordinates, tracing in polar coordinates of standard curves,	September	2
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	L'Hospital's rule, applications in business, economics and life sciences.	October	7
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	Reduction formulae,	October	2
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	derivations and illustrations of reduction formulae of the type $\int \sin^n x dx$ , $\int \cos^n x dx$ , $\int \tan^n x dx$ , $\int \sec^n x dx$ , Parametric equations, parametrizing a curve, arc length of a curve, arc length of parametric curves, area under a curve, area and volume of surface of revolution	November	10
CC-1	MTM-A-CC-1-1-TH	Unit-1 Calculus	Graphical Demonstration Plotting of graphs of function $eax+b$ , $\log(ax+b)$ , $1/(ax+b)$ , $\sin(ax+b)$ , $\cos(ax+b)$ , $ ax+b $ and to illustrate the effect of $a$ and $b$ on the graph. • Plotting the graphs of polynomial of degree 4 and 5, the derivative graph, the second derivative graph and comparing them. • Sketching parametric curves (Eg. trochoid, cycloid, epicycloids, hypocycloid). • Obtaining surface of revolution of curves. • Tracing of conics in cartesian coordinates/ polar coordinates. • Sketching ellipsoid, hyperboloid of one and two sheets, elliptic cone, elliptic, paraboloid, and hyperbolic paraboloid using cartesian coordinates.	December	10
CC-5	MTM-A-CC-3-5-TH	Unit-2 : Differentiability of functions	Differentiability of a function at a point and in an interval, algebra of differentiable functions. Meaning of sign of derivative. Chain rule.	August	12
CC-5	MTM-A-CC-3-5-TH	Unit-2 : Differentiability of functions	Darboux theorem, Rolle's theorem, Mean value theorems of Lagrange and Cauchy — as an application of Rolle's theorem. Taylor's theorem on closed and bounded interval with Lagrange's and Cauchy's form of remainder deduced from Lagrange's and Cauchy's mean value theorem respectively.	September	13
CC-5	MTM-A-CC-3-5-TH	Unit-2 : Differentiability of functions	Expansion of $e^x$ , $\log(1+x)$ , $(1+x)^m$ , $\sin x$ , $\cos x$ with their range of validity (assuming relevant theorems). Application of Taylor's theorem to inequalities.	October	12

		ability of functions			
CC-5	MTM-A-CC-3-5-TH	Unit-2 : Differentiability of functions	Statement of L' Hospital's rule and its consequences. Point of local extremum (maximum, minimum) of a function in an interval. Sufficient condition for the existence of a local maximum/minimum of a function at a point (statement only).	November	14
CC-5	MTM-A-CC-3-5-TH	Unit-2 : Differentiability of functions	Determination of local extremum using first order derivative. Application of the principle of maximum/minimum in geometrical problems	December	9
GE-1	MG(GE1)101	Unit-2 : Differential Calculus-I	Rational numbers, Geometrical representations, Irrational number, Real number represented as point on a line — Linear Continuum. Acquaintance with basic properties of real number (No deduction or proof is included).	August	8
GE-1	MG(GE1)101	Unit-2 : Differential Calculus-I	Real-valued functions defined on an interval, limit of a function (Cauchy's definition). Algebra of limits. Continuity of a function at a point and in an interval. Acquaintance (on proof) with the important properties of continuous functions on closed intervals. Statement of existence of inverse function of a strictly monotone function and its continuity.	September	9
GE-1	MG(GE1)101	Unit-2 : Differential Calculus-I	Derivative - its geometrical and physical interpretation. Sign of derivative-Monotonic increasing and decreasing functions. Relation between continuity and derivability. Differential - application in finding approximation.	October	8
GE-1	MG(GE1)101	Unit-2 : Differential Calculus-I	Successive derivative - Leibnitz's theorem and its application. Functions of two and three variables : their geometrical representations. Limit and Continuity (definitions only) for function of two variables. Partial derivatives. Knowledge and use of chain Rule. Exact differentials (emphasis on solving problems only). Functions of two variables - Successive partial Derivatives : Statement of Schwarz's Theorem on Commutative property of mixed derivatives. Euler's Theorem on homogeneous function of two and three variables.	November	9
GE-1	MG(GE1)101	Unit-2 : Differential Calculus-I	Applications of Differential Calculus : Curvature of plane curves. Rectilinear Asymptotes (Cartesian only). Envelope of family of straight lines and of curves (problems only). Definitions and examples of singular points (Viz. Node. Cusp, Isolated point).	December	8
GE-3	MG(GE3)301	Unit-1 : Integral Calculus	<ul style="list-style-type: none"> <li>Evaluation of definite integrals.</li> <li>Integration as the limit of a sum (with equally spaced as well as unequal intervals).</li> </ul>	August	5
GE-3	MG(GE3)301	Unit-1 : Integral Calculus	Reduction formulae of $\int \sin^n x \cos^m x dx$ , $\int \sin^m x \cos^n x dx$ , $\int \tan^n x dx$ and associated problems ( $m$ and $n$ are non-negative integers).	September	4
GE-3	MG(GE3)301	Unit-1 : Integral Calculus	Definition of Improper Integrals : Statements of (i) $\mu$ -test (ii) Comparison test (Limit from excluded) - Simple problems only. Use of Beta and Gamma functions (convergence and important relations being assumed).	October	4
GE-3	MG(GE3)301	Unit-1 :	Working knowledge of double integral	November	3

		Integral Calculus		er	
GE-3	MG(GE3)301	Unit-1 : Integral Calculus	Applications : Rectification, Quadrature, volume and surface areas of solids formed by revolution of plane curve and areas problems only.	Decemb er	5
CC-3	MTM-A-CC-2-3-TH	Unit-1, Real Analysis	Intuitive idea of real numbers. Mathematical operations and usual order of real numbers revisited with their properties (closure, commutative, associative, identity, inverse, distributive).	Februar y	12
CC-3	MTM-A-CC-2-3-TH	Unit-1, Real Analysis	Idea of countable sets, uncountable sets and uncountability of $\mathbb{R}$ . Concept of bounded and unbounded sets in $\mathbb{R}$ . L.U.B. (supremum), G.L.B. (infimum) of a set and their properties.	March	13
CC-3	MTM-A-CC-2-3-TH	Unit-1, Real Analysis	L.U.B. axiom or order completeness axiom. Archimedean property of $\mathbb{R}$ . Density of rational (and Irrational) numbers in $\mathbb{R}$ .	April	10
CC-3	MTM-A-CC-2-3-TH	Unit-1, Real Analysis	Intervals. Neighbourhood of a point. Interior point. Open set. Union, intersection of open sets. Limit point and isolated point of a set. Bolzano-Weirstrass theorem for sets. Existence of limit point of every uncountable set as a consequence of Bolzano-Weirstrass theorem.	May	12
CC-3	MTM-A-CC-2-3-TH	Unit-1, Real Analysis	Derived set. Closed set. Complement of open set and closed set. Union and intersection of closed sets as a consequence. No nonempty proper subset of $\mathbb{R}$ is both open and closed. Dense set in $\mathbb{R}$ as a set having non-empty intersection with every open intervals. $\mathbb{Q}$ and $\mathbb{R}$ are dense in $\mathbb{R}$ .	June	11
CC-8	MTM-A-CC-4-8-TH	Unit-2 : Improper integral	<ul style="list-style-type: none"> <li>• Range of integration, finite or infinite. Necessary and sufficient condition for convergence of improper integral in both cases.</li> <li>• Tests of convergence : Comparison and M-test. Absolute and non-absolute convergence and inter-relations. Statement of Abel's and Dirichlet's test for convergence on the integral of a product.</li> <li>• Convergence and working knowledge of Beta and Gamma function and their interrelation . Computation of the integrals when they exist (using Beta and Gamma function).</li> </ul>	Februar y	12
CC-8	MTM-A-CC-4-8-TH	Unit-3 : Series of functions	Sequence of functions defined on a set, Pointwise and uniform convergence. Cauchy criterion of uniform convergence. Weirstrass' M-test. Boundedness, continuity, integrability and differentiability of the limit function of a sequence of functions in case of uniform convergence	March	13
CC-8	MTM-A-CC-4-8-TH	Unit-3 : Series of functions	Series of functions defined on a set, Pointwise and uniform convergence. Cauchy criterion of uniform convergence. Weierstrass' M-test. Passage to the limit term by term. Boundedness, continuity, integrability, differentiability of a series of functions in case of uniform convergence	April	10
CC-8	MTM-A-CC-4-8-TH	Unit-3 : Series of functions	Power series: Fundamental theorem of power series. Cauchy-Hadamard theorem. Determination of radius of convergence. Uniform and absolute convergence of power series. Properties of sum function. Differentiation and integration of power series. Abel's limit theorems. Uniqueness of power series having sum function.	May	11

CC-8	MTM-A-CC-4-8-TH	Unit-3 : Series of functions	Fourier series : Trigonometric series. Statement of sufficient condition for a trigonometric series to be a Fourier series. Fourier coefficients for periodic functions defined on $[-\_, \_]$ . Statement of Dirichlet's condition of convergence. Statement of theorem of sum of Fourier series	June	12
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-1, Point Set Topology	Topological spaces, basis and subbasis for a topology, neighbourhoods of a point, interior points, limit points, derived set, boundary of a set, closed sets, closure and interior of a set, dense subsets, subspace topology, finite Product topology, Continuous functions	February	23
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-1, Point Set Topology	open maps, closed maps, homeomorphisms, topological invariants, metric topology, isometry and metric invariants.	March	12
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-2, Point Set Topology	First countability, $T_1$ and $T_2$ separation axioms of topological spaces, convergence and cluster point of a sequence in topological spaces and some related concepts on first countable as well as on $T_2$ spaces. Heine's continuity criterion.	March	16
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-3, Point Set Topology	Connected spaces, connected sets in $\mathbb{R}$ , components, Compact spaces, compactness and $T_2$	April	18
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-3, Point Set Topology	compact sets in $\mathbb{R}$ , Heine-Borel Theorem for $\mathbb{R}^n$ , real valued continuous function on connected and compact spaces, the concept of compactness in metric space,	May	22
DSE-B(2)	TM-A-DSE-B-6-2-TH	Unit-3, Point Set Topology	Sequentially compactness of a metric space $X$ and the Bolzano-Weierstrass property of $X$ are equivalent.	June	22
GE-2	MTM-G-CC-2-2-TH / MTM-G-GE-2-2-TH	Unit-1 : Differenti al Calculus- II	Indeterminate Forms : L'Hospital's Rule : Statement and Problems only	February	4
GE-2	MTM-G-CC-2-2-TH / MTM-G-GE-2-2-TH	Unit-1 : Differenti al Calculus- II	Real-Valued functions defined on an interval: Statement of Rolle's Theorem and its geometrical interpretation	March	5
GE-2	MTM-G-CC-2-2-TH / MTM-G-GE-2-2-TH	Unit-1 : Differenti al Calculus- II	Mean value theorems of Lagrange and Cauchy. Statements of Taylor's and Maclaurin's Theorems with Lagrange's and Cauchy's form of remainders	April	4
GE-2	MTM-G-CC-2-2-TH / MTM-G-GE-2-2-TH	Unit-1 : Differenti al Calculus- II	Taylor's and Maclaurin's Infinite series of functions like $e^x$ , $\sin x$ , $\cos x$ , $(1+x)^n$ , $\log(1+x)$ with restrictions wherever necessary.	May	4
GE-2	MTM-G-CC-2-2-TH / MTM-G-GE-2-2-TH	Unit-1 : Differenti al Calculus- II	Application of the principle of Maxima and Minima for a function of single variable in geometrical, physical and to other problems.	June	3



## Teaching Plan

**Department: Mathematics**

**Session: 2022-23**

**Name of the teacher: Dr. Sukdev Dutta**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC-4	MTM-A-CC-2-4-TH	Unit-1 Group Theory-1	Symmetries of a square, definition of group, examples of groups including permutation groups	February	6
CC-4	MTM-A-CC-2-4-TH	Unit-1 Group Theory-1	dihedral groups and quaternion groups (through matrices) elementary properties of groups	March	7
CC-4	MTM-A-CC-2-4-TH	Unit-1 Group Theory-1	Elementary properties of groups, Subgroups and examples of subgroups	April	6
CC-4	MTM-A-CC-2-4-TH	Unit-1 Group Theory-1	Necessary and sufficient condition for a nonempty subset of a group to be a subgroup. Normalizer,	May	5
CC-4	MTM-A-CC-2-4-TH	Unit-1 Group Theory-1	centralizer, center of a group, product of two subgroups.	June	4
CC-10	MTM-A-CC-4-10-TH	Unit-1 : Mechanics	<b>Coplanar forces in general:</b> Resultant force and resultant couple, Special cases, Varignon's theorem, Necessary and sufficient conditions of equilibrium. Equilibrium equations of the first, second and third kind.	February	6
CC-10	MTM-A-CC-4-10-TH	Mechanics: Unit-1	<b>An arbitrary force system in space :</b> Moment of a force about an axis, Varignon's theorem. Resultant force and resultant couple, necessary and sufficient conditions of equilibrium. Equilibrium equations, Reduction to a wrench, Poinso's central axis, intensity and pitch of a wrench, Invariants of a system of forces. Statically determinate and indeterminate problems.	March	7
CC-10	MTM-A-CC-4-10-TH	Mechanics: Unit-1	<b>Equilibrium in the presence of sliding Friction force :</b> Contact force between bodies, Coulomb's laws of static Friction and dynamic friction. The angle and cone of friction, the equilibrium region.	April	5
CC-10	MTM-A-CC-4-10-TH	Mechanics: Unit-2	<b>Virtual work :</b> Workless constraints - examples, virtual displacements and virtual work. The principle of virtual work, Deductions of the necessary and sufficient conditions of equilibrium of an arbitrary force system in plane and space, acting on a rigid body.	May	7
CC-10	MTM-A-CC-4-10-TH	Mechanics: Unit-2	<b>Stability of equilibrium :</b> Conservative force field, energy test of stability, condition of stability of a perfectly rough heavy body lying on a fixed body. Rocking stones	June	5
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced mechanics: Unit-1	Degrees of freedom, reactions due to constraints. D'Alembert's principle; Lagrange's first kind equations; Generalized coordinates; Generalized forces;	February	22

			Lagrangian; Second kind Lagrange's equations of motion; cyclic coordinates; velocity dependent potential; Principle of energy; Rayleigh's dissipation function.functions		
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced echanics: Unit-2	Action Integral; Hamilton's principle; Lagrange's equations by variational methods; Hamilton's principle for non-holonomic system; Symmetry properties and conservation laws; Noether's theorem. Canonically conjugate coordinates and momenta;	March	24
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced echanics: Unit-2	Legendre transformation; Routhian approach; Hamiltonian.	April	8
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced echanics: Unit-3	Hamilton's equations from variational principle; Poincare-Cartan integral invariant; Principle of stationary action; Fermat's principle;	April	18
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced echanics: Unit-4	Canonical transformation; Generating function; Poisson Bracket; Equations of motion; Action-angle variables; Hamilton-Jacobi's equation;	May	22
DSE-B(2)	MTM-A-DSE-B-6-2-TH	Advanced echanics: Unit-4	Hamilton's principal function; Hamilton's characteristics function; Liouville's theorem.	June	12

# Teaching Plan

**Department: Pol Sc Morning**

**Session: 2022 (odd) 23 (even)**

**Name of the teacher: Prof. Bulbul Raychoudhury , Associate Professor**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC Sem 1	CC 1	Module 1	1, 2	Aug-Dec 2022	2/week
CC Sem 3	CC 5	Module 1, 2	1, 2, 3, 4, 5, 6, 7	Aug-Dec 2022	6/week
CC Sem 5	CC 12	Module 1, 2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Aug-Dec 2022	6/week
CC Sem 4	CC 8	Module 1, 2	1, 2, 3, 4, 5, 6	Feb-May 2023	6/week
CC Sem 4	ACCB	Module 1,2	1, 2, 3, 4, 5, 6, 7,	Feb-May 2023	2/week
CC Sem 6	CC 14	Module 1, 2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Feb-May 2023	6/week
GE 2 [not taken in current session]	GE 2	Module 1	1, 2	Feb-May 2023	2/week

**Name of the teacher: Dr. SAHELI BOSE , Assistant Professor .**

<b>Course type (CC/ GE/SEC/AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Sem 1	Cc1:	Module 1	5,6	Aug-Dec 2022	2/week
Sem 3	CC7 CC8	Module 1	All topics	Aug-Dec	6 /week
Sem5	DSE (A)	Module I and II	All topics	Aug-Dec 2022	6 /week
Sem 1 (GE)	GE1	Module 1	2	Aug-Dec 2022	2/week
Sem 4	CC9 CC10	Module 1 Module 2	All topics 1,6,8	Feb- May 2023	5/week
Sem 6	DSE (B) DSE (B)	Module 1 and II Module II	All topics 5,6	Feb-May 2023	7/week
GE4	GE3	Module I and II	All topics	Feb-May 2023	3/week
GE2	GE2	Module 1	1	Feb-May 2023	1/week

**Name of the teacher: Baisakhi Bhattacharyya, SACT-II**

<b>Course type (CC/ GE/SEC/AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC Sem-1	CC 2	Module 2	4, 5, 6	Aug-Dec 2022	3/week
CC Sem-3	CC 6	Module 2	6, 7, 8, 9, 10	Aug-Dec2022	3/week
CC Sem-5	CC 11	Module 2	4, 5, 6, 7	Aug-Dec 2022	3/week
GE 1	CC	Module 2	5, 6	Aug-Dec2022	1/week
GE 3	CC	Module 1	1, 2, 3, 4	Aug-Dec 2022	2/week
CC Sem-2	CC 3	Module 1, 2	4, 5, 6, 7, 8	Feb-May 2023	4/week
CC Sem-4	CC 10	Module 1	1, 2, 3, 4	Feb-May2023	3/week
CC Sem 6	CC 13	Module 2	5, 6, 7, 8	Feb-May2023	3/week
GE 2	CC	Module 1, 2	3, 4, 5	Feb-May2023	2/week

**Name of the teacher: SWAGATA BHATTACHARYA, SACT-II**

<b>Course type (CC/ GE/SEC/AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC, SEM1	CC2	MODULE1	1,2,3	AUG-DEC 2022	3 PER WEEK
SEM3	CC6	MODULE1	1,2,3,4,5	AUG-DEC 2022	4 PER WEEK
SEM 5	CC11	MODULE1	1,2,3	AUG-DEC 2022	3 PER WEEK
GE3	PAPER 3	MODULE2	7,8,9,10	AUG- DEC2022	1 PER WEEK
GE 1	PAPER 1	MODULE 1	1,2	AUG-DEC 2022	1 PER WEEK
SEM 2	CC4	MODULE 1 AND 2	1,2,3,6	FEB-MAY 2023	6/WEEK
SEM4	CC10	MODULE 2	1,2,3	FEB-MAY 2023	3/WEEEEK
SEM 6	CC13	MODULE1	1,2,3,4	FEB-MAY 2023	3/WEEK

**Name of the teacher: Swagata Sarkhel, SACT-I**

<b>Course type (CC/ GE/SEC/AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Sem 1	CC1 CC2	CC1-Module 1, Module 2 CC2- Module 2	CC1- Topics:3(M1), 4(M2) CC2-Topics: 4(M2)	Aug-Dec 2022	CC1- 2/week CC2- 2/week
Sem 3	CC7	Module 1 Module 2	Topics: 1,3 (M1) 6 (M2)	Aug-Dec 2022	3/week
Sem 5	DSE 5B	Module 1 &2	All topics of Module 1 &2	Aug-Dec 2022	5/week
Sem 2	CC4	Module 2	Topics: 4,5	Feb-May 2023	2/week
Sem 4	CC9 CC10	CC9-Module 2 CC10-Module 1 &2	CC9-Topics: 4,6 CC10-Topics: 3,4 (M1), 7 (M2)	Feb-May 2023	CC9- 2/week CC10- 1/week
Sem 6	DSE 6A	Module 1&2	All topics of Module 1&2	Feb-May 2023	7/week

## Teaching Plan

**Department: Political Science Day**

**Session: 2018-2019, 2019-2020, 2020-2021, 2021-2022**

**Name of the teacher: Santanu Sengupta**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>2018-19 Session</b>  SEM 1 CC       GE   Hons Part 2 (1+1+1)  General 2      Hons Part 3 (1+1+1)	CC 2	Module 1	Concept of State , Nation, Liberalism, Neo-Liberalism, Social Welfarism, Post-Colonialism	July- August Aug-Sep Oct-Nov Dec Aug-Dec @ 1 per wk Jul-Nov	@3 an week : 09 12 08 10 12 26  @ 1 class an week: 12 classes
	GE 1	Module 1	Contract theory, Liberal theory. Idealist theory, Marxist theory. Monastic and Pluralistic theory of Sovereignty	July to Nov	
	Paper 4 Intl Rels	1 <sup>st</sup> and 2 <sup>nd</sup> Unit			
	Comp Politics	Unit 1	Theories of Intl Rels Liberal and Realist to Development  Political System, Liberal, Authoritarian , Socialist to Federal and Unitary, Conventions, Rule of Law, Parliamentary system, Cabinet	July to February	@3 classes an week 38 classes
	Political Sociology	Unit 2			



			system  Political communication, Political Development, Political Participation, Gender and Politics, Electorate and Electoral Behaviour, Military and Politics, Religion and Politics.		
SEM2 CC	CC 4	Module 1	Indian Political System: Indian Party System, Election Commission, Supreme Court, Organized Business, Peasantry and Working class.	Feb-Mar  Mar-Apr Apr-Ma Ma-Jun	@3 an week 11 12 11 12
GE	GE 2	Module 2		Feb-Jun	14
Hons Part 2 (1+1+1)	Paper 4		WST, Dependency, Neorealism	Dec-Mar	18
General 3	Indian Politics	Unit 2	Governor, CM, Local Govts., Election Commission, Party System Evolution	Dec-Mar	8 classes
<b>2019-2020 session</b> (partly Online)  Semester 3	CC 7	Module 2	<u>Theories and concepts of Intl Relations:</u> Evolution of International Relations, Liberal and Realist Approaches, Neo or Structural Realism,	July to Dec    July August Sept,	@ 3 classes an week 38 classes 6 10 10

GE 3 (CBCS)	Govt and Politics in India	Module 2	Dependency model, WST, Concept of Development in Intl Relations. Govt in the States, CM and Governor, Election Commission, Party system in India	Oct Nov-Dec	4 8
Semester 1	CC2	Module 1 and 2	Political Theory: Ch1 What is Political, Concept of State and Nation Liberalism, Neoliberalism, Welfarism, Post-colonialism	July to Dec  July to Dec  July Aug Sept Oct Nov	@1 class in an week 14 classes in all. @3 class per wk 6 12 10 4 10
Hons Part 3 (1+1+1)	Political Sociology	Unit 2	Political Communication, Political Participation, Political Development and Social Change, Gender and Politics, Electorate and Electoral Behaviour, Military and Politics	July to Dec  July-Aug Aug-Sept Sept-Oct Oct-Nov	  @3 classes per week 36 classes
Semester 4 Hons	CC8 and CC 9	Module2 and Module 1	CC8: Indian Political Thought: Indian Nationalism, Savarkar and Jinnah, Jyotirao Phule, Pandita Ramabai. CC9: Global Politics: Cold War between the East and the West, Emergence of 3rd World: NAM, Pan-Africanism,	February 2020 to June  Feb-Mar Mar-April, April - May, May-June	@ 3 classes an week 10, 10 9 8

<b>Skill Enhancement Course</b>	SEC B 1 Legislative Practices and Procedures	Module 1 and 2  Module 1	Globalization: perspectives, Europe in Transition, From EEC to EU, Brexit.  Privileges and Immunities of Parliament members and members of State Assembly, How a Bill becomes a law, Role of Standing Committees	Feb to June 2020	@1 class per WK 1 3 4 3 1
GE (CBCS)	GE4 International Relations		Evolution of International Relations as a Discipline, Realist and Neo-Realist Approaches, WST and Dependency Theories, Complex Interdependence.	Feb to June	
Semester 2				Feb Mar Apr May June	@ 1 class week 2 4 4 3 2
<b>2020-2021 session (Mostly Online)</b> <b>BA Hons</b> Semester 5	CC 12 Political Sociology	Module 1 and 2	Social Bases of Politics, Political communication, Political Development and Social Change, Political Participation.	Sept to January	@3 classes per wk 6 6 10 9 6
<b>DSE</b>	DSE A2		Gender and Politics, Electorate and Electoral Behaviour		
	DSE A2	Module 1	Understanding South Asia: Historical and Colonial Legacies, Geopolitics of S. Asia, Regime Types	Sept to Jan, 2021	@ 3 classes an WK 6, 3, 10, 9, 5
	DSE B 1	Module 1 and 2	Indian Foreign Policy: From a Post-colonial State to an aspiring world	Sept to Jan 2021	@ 3 classes

Semester 3 Hons	CC 7 Theories of International Relations	Module 1	Power; India's Relations with US and Russia; India's Negotiating style and strategies: Trade, Environment and Security  Theories of International Relations: Evolution of Intl. Rels. as a separate discipline, Liberal Idealism, Realism, Neo-Realism, World Systems Theory, Dependency, Development in Intl. Relations	Sept to Jan 2021	an WK 5, 3, 10, 9, 5  @ 3 classes per WK 6 6 11 9 6
Semester 1 Hons	CC 1 and CC 2	Module 2	Chapter1, What is Political? Ch 2, Concepts of State , Nation and Nationalism; CC 2, Liberalism, Neo-liberalism, Social Welfarism, Post-Colonialism	Sept to January 2021	@3 classes per WK 6 5 11 8 6
GE 3	GE3 Govt and Politics of India	Module 2	Governor, CM, Council of Ministers, Panchayati Raj Institutions, Urban local Government, Evolution of Party system, Role of Election Commission	Sept to Jan 2021	@1 class per WK 2 2 4 3 3
GE 1	GE 1 Political Theory	Module 1	State: Contract Theory, Idealist Theory, Liberal Theory, Marxist and Gandhian	Sept to Jan 2020	@ 1 class per WK 2, 1, 4,

Semester 6	CC 13	Module 1	Theory, Monistic and Pluralist Theory of Sovereignty	Feb to June 2021	3, 1
			Public Administration Theories: Public Policy, definition, types, policy making		@ 3Classes per WK
	CC 14	Module 1 and Module 2	Indian Public Admn: Ch 1, 2 and 3: Historical overview of Indian Administration, UPSC, Recruitment and Training, PMO, Cabinet Secretariat, Ch7: Planning Commission, NDC and NITI AYOOG: Composition and functions		3 10 10 8 3
	DSE A4 Understanding Global Politics	Module 1	Evolution of the State system, Global Economy: Brettonwoods Institutions, WTO, Ideology of Global Eco Architecture, Trans Eco actors, Climate change, Global Civil society.	Feb to June 2021	@2 classes per WK 2, 5, 6, 4, 2
Semester 4	DSE B3 Citizenship in a Globalizing world	Module 2	Citizenship and Diversity, Globalization and Citizenship, Cosmopolitan citizenship	Feb to June 2021	2, 6, 6, 4, 2
	Global Politics	Module 1	CC 8: Indian Political Thought CC 9: Global Politics Both Same aa above	Feb to June	@3 class per WK
Semester 2	Politics and	Module 2		Feb to	@3

	Govt in India		Govt and Politics in India: From Executive in States to Election Commission(Stated)	June	class per WK
GE 4	GE4 International Relations	Module 1	International Rels as a field of Study, Classical Realism and Neo-Realism, Neo-Liberalism, WST, Dependency, Cold War, It's phases, Détente	Feb to June 2021	@1class per wk 1, 3, 3, 2, 1
GE 2	GE 2 Comparative Politics	Module 1	Political System, Ch1: Liberal Democratic, Authoritarian, Socialist, Forms: Federal, Unitary, Parliamentary and Presidential, Ch2: Features of UK Constitution, Conventions, Rule of Law, Parliamentary Sovereignty, PM and Cabinet Dictatorship.	Feb to June 2021	@1 class per WK 1, 3, 3, 3, 1
GE 4					
GE 2					

2021 to 2022 academic Session BA Hons	Semester 5	CC 12 Political Sociology	Module 1 and 2	Social Bases of Politics to Political Communication (detailed above) Gender and Politics to Electoral Behaviour (detailed above)	Aug to Dec 2021	@3 classes per WK 6, 10, 4, 10, 6
		CC 11 Western Political Thought	Module 2	Cultural Marxism, Frankfurt School	Aug to Dec 2021	@1 Class per week 7 classes
			Module 1	Historical and Colonial Legacies, Geopolitics to Regime Types (detailed above)	Aug to Dec 2021	@2 classes per WK 4, 8, 2, 6, 4
	Semester 3	DSE A2 Understanding South Asia	Module 1 and 2	From a Postcolonial State to an aspiring Global power to India’s Negotiating style and strategies (detailed above, same)	Aug to Dec 2021	@ 2 classes per WK 2, 8, 2, 6, 4
		DSE B2 Indian Foreign Policy in a Globalizing World	Module 1 Perspectives in International Relations	Evolution of International Relations: Political Realism and Structural Realism to the Importance of Development in International Relations( detailed syllabus listed above)	Aug to Dec 2021	@2 classes per WK,  2, 8, 2, 7, 2
		CC 7				
	Semester 1		CC1 and 2 Module 1	What is Political, Concept of State and	Aug to Dec,	

<b>GE 3</b>          <b>GE 1</b>          <b>2021 – 2022</b> <b>academic session</b>   <b>Semester 6</b>	CC 1 and CC 2		Nation to Liberalism and Post-colonialism(detailed syllabus listed above)	2021	@2 classes per WK 2, 9, 2, 7, 3
		Module 2	Government in the States to Party system in India(detailed syllabus listed above)	Aug to Dec 2021	@1 class per WK 13 classes
	GE 3 Govt and Politics in India				
		Module 1	Normative and Behavioral and Marxist Theory to the Theories of the State and Sovereignty(detailed syllabus listed above)	Aug to Dec 2021	1 class per week. 13 classes till Dec
	GE1 Introduction to Political Theory				
		Module 1	Public Administration Theories: Making of Public Policy	Feb to June 2022	@3 classes per WK
	CC 13	Module 2	Evolution of Pub Ad in India, UPSC to Planning Commission and NITI AYOOG (detailed syllabus Listed above)		26 classes
	CC 14				
		Module 1	Understanding Global Politics: Sovereign State system to The Global Economy ( detailed Syllabus listed above)	Feb to June 2022	@2 classes per WK 26 classes
	DSE A4				
	DSE B3	Module 2	Citizenship in a Globalizing World: Multicultural	Feb to June 2022	@2



<b>Semester 4</b>	CC 8 Indian Political Thought	Module 2	Citizenship and Cosmopolitan Citizenship  Savarkar , Jinnah, Jyotiba Phule and Pandita Ramabai	Feb to June 2022	classes per WK 24 classes
	CC 9	Global Politics since 1945	Cold War to Post Cold War world to Third World to Globalization to EU and BREXIT		@3 classes per WK 28 classes
	Skill Enhancement Course	SEC B1	Powers and privileges of Parliament members, Functionaries of Local Govt bodies, Law Making Procedures, Role and Powers of Parliamentary Committees	Feb to June 2022	@1 class per WK 11 Classes
<b>Semester 2</b>	CC 4	Govt and Politics in India	Government in the States to Organized Business and Organized Peasantry and Working Class to Election Commission	Feb to June 2022	@2 classes per WK 22 classes
<b>GE 4</b>	GE4 International Relations	Module 1	Evolution of International Relations as a field of study: Classical Realism , Neo - Realism , WST to Cold War(Detailed syllabus listed above)	Feb to June 2022	@1 class per WK 14 classes
<b>GE 2</b>	<b>GE2</b>	Module 1			

	<b>Comparative Politics</b>		Political System: Liberal, Authoritarian, Socialist, Forms: Federal Parliamentary and Presidential, Conventions in UK, Rule of Law, PM and Cabinet Dictatorship, Party system in Britain	Feb to June 2022	@1 class per WK 14 classes
<p><b>**** In addition to these elaborate <u>Teaching Plan, Tutorials, internal examinations are conducted on a regular basis and as per a time table as well as occasionally paper presentation by students are also conducted.</u></b></p> <p><b><u>Prof. Santanu Sengupta ,</u></b> <b><u>Department of Political Science</u></b></p>					

--	--	--	--	--	--

## Teaching Plan

**Department: Political Sc (Day)**

**Session:2018-2019**

**Name of the teacher: Siddhartha Dasgupta**

Course type (CC/ GE/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC (Sem 1)	CC1 (Understanding Political Theory: Concepts)	Module 2	Democracy (Held), Authoritarianism	July-Nov	21 @2 per wk.
CC(Sem 1)	CC2 (Understanding Political Theory: Approaches and Debates)	Module 1	Normative, Legal- institutional, Empirical, Systems Analysis, Structural Functionalism	July-Nov	25 @2 per wk.
GE(Sem 1)	GE1 (Introduction to Political Theory)	Module 2	Fascism, Political parties, Interest groups: functions and role; Methods of representation:	July- Nov	13 @ 1 per wk.
1+1+1 (Part 2)	Paper 3 (Govt and Politics in India )	Unit-4	Religion, Language, Caste, Tribe, Regionalism, HR, Women's, environmental movements	July-Jan	29 @ 2 per wk.
1+1+1 (Part 2)	Paper 4 (International Relations)	Unit-3, Unit-4	Regional Organisations, Palestine problem Indian foreign policy	July-Jan	17 @1 per wk
1+1+1 (Part 3)	Paper 6 (Indian Political Thought and Movement)	Unit-1, Unit-2	Kautilya, Saptanga, Dandaniti, Diplomacy Gandhi, Syed Ahmed Khan	July to February	45 @2 per wk.
1+1+1 (Part 3)	Paper 7 (Political Sociology)	Unit-3	Political Culture and Socialisation, Military in Politics Religion and Politics	July to February	48 #2 per wk.
1+1+1 (Part 3)	Paper 4 (gen)	Unit-1	Indian fp.	July to February	23 @1 per wk.

## Teaching Plan

**Department: Political Sc (Day)**

**Session:2019-2020**

**Name of the teacher: Siddhartha Dasgupta**

<b>Course type (CC/ GE/SEC/AE CC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC(Sem 1)	CC1 (Understandin g Political Theory: Concepts)	Module 2	Democracy (Held), Authoritarianis m	July-Nov	26 @2 per wk.
CC(Sem 1)	CC2 (Understandin g Political Theory: Approaches and Debates)	Module 1	Normative, Legal- institutional, Empirical, Systems Analysis, Structural Functionalism	July-Nov	25 @2 per wk.
GE(Sem 1)	GE1 (Introduction to Political Theory)	Module 2	Fascism, Political parties, Interest groups: functions and role; Methods of representation:	July- Nov	14 @ 1 per wk.
CC (Sem 2)	CC3 (Constitutional Government in India)	NA	NA	NA	NA
CC(Sem 2)	CC4 (Politics in India: Structures and Processes)	Module 2	Religion, Language, Caste, Tribe, Regionalism, New Social Movements	Nov to March	29 @2 per wk.
GE(Sem 2)	GE2 Comparative Govt and Politics	Module-1-3; Module 2- 5	USA, Switzerland, France, Bangladesh	Nov to March	13 @1 per wk.

CC (Sem 3)	CC5 Indian Political Thought -1	Module-1	Ancient Indian Political Thought; Kautilya- Diplomacy, Saptanga, Dandaniti	July to Dec	15 @1 per wk
CC (Sem 3)	CC 6 (Comparative Govt and Politics )	Module-1- 4,5 Module 2- 6	Classification of Political Systems, Parties, Unitary system.	July to Dec	15 @1 per wk.
CC (Sem 3)	CC 7 (Perspectives on International Relations)	Module-2- 4,5	Making of foreign policy, Major phases of Indian foreign policy.	July to Dec	16 @1per wk.
CC (Sem 3)	SEC A1 (Democratic Awareness through Legal literacy)	NA	NA	NA	NA
GE (Sem 3)	GE 3 (Government and Politics in India)	Module-2- 11, 12.	Regionalism, social and political movements.	July to Dec	13 @1 per wk.
CC (Sem 4)	CC 8 (Indian Political Thought -II)	Module 1-3 Module 2-4	Syed Ahmed Khan and Iqbal: colonialism and nationalism; Nehru: Socialism and Democracy; Subhas Ch. Bose: Socialism and Fascism	Feb to June	15 @1 per wk
CC (Sem 4)	CC 9 (Global Politics since 1945)	Module 2-4 and 5	India and her neighbours I: Pakistan; Bangladesh; India and her neighbours II: Nepal; Bhutan; Sri Lanka	Feb to June	13 @1 per wk
CC (Sem 4)	CC 10 (Western Political	NA	NA	NA	NA

	Thought and Theory)				
CC (Sem 4)	SEC B1 (Legislative Practices and Procedures)	Module 2	Bills, Committees, Peoples representatives	Feb-June	10 @ 1 per wk.
GE (Sem 4)	GE 4 (International Relations)	Module 1-2 Module 2-3	Cold War- Origin, Phases, Détente Post Cold War era-new power centres	Feb-June	12 @ 1 per wk
1+1+1 (Part 3)	Paper 6	Unit-1, Unit-2	Kautilya, Saptanga, Dandaniti, Diplomacy Gandhi, Syed Ahmed Khan	July to February	44 @ 1 per wk
1+1+1 (Part 3)	Paper 7	Unit-3	Political Culture and Socialisation, Military in Politics Religion and Politics	July to February	49 @ 2 per wk

## Teaching Plan

**Department: Political Sc (Day)**

**Session:2020-2021**

(Online classes held due to pandemic related lockdown-data approximated)

**Name of the teacher: Siddhartha Dasgupta**

Course type (CC/ GE/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(Sem 1)	CC1 (Understanding Political Theory: Concepts)	Module 2	Democracy (Held), Authoritarianism	Aug- Dec	28 @2 per wk.
CC(Sem 1)	CC2 (Understanding Political Theory: Approaches and Debates)	Module 1	Normative, Legal- institutional, Empirical, Systems Analysis, Structural Functionalism	Aug- Dec	24 @2 per wk.
GE(Sem 1)	GE1 (Introduction to Political Theory)	Module 2	Fascism, Political parties, Interest groups: functions and role; Methods of representation:	Aug- Dec	13 @ 1 per wk.
CC (Sem 2)	CC3 (Constitutional Government in India)	NA	NA	NA	NA
CC(Sem 2)	CC4 (Politics in India: Structures and Processes)	Module 2	Religion, Language, Caste, Tribe, Regionalism, New Social Movements	Nov to April	30 @2 per wk.
GE(Sem 2)	GE2 Comparative Govt and Politics	Module-1- 3; Module 2- 5	USA, Switzerland, France, Bangladesh	Nov to April	12 @1 per wk.
CC (Sem 3)	CC5 Indian Political Thought -1	Module-1	Ancient Indian Political Thought; Kautilya-Diplomacy, Saptanga, Dandaniti	July to Dec	15 @1 per wk.
CC (Sem 3)	CC 6 (Comparative Govt and Politics )	Module-1- 4,5 Module 2- 6	Classification of Political Systems, Parties, Unitary system.	July to Dec	29 @2per wk.



CC (Sem 3)	CC 7 (Perspectives on International Relations)	Module-2-4,5	Making of foreign policy, Major phases of Indian foreign policy.	July to Dec	15 @1per wk.
CC (Sem 3)	SEC A1 (Democratic Awareness through Legal literacy)	NA	NA	NA	NA
GE (Sem 3)	GE 3 (Government and Politics in India)	Module-2-11, 12.	Regionalism, social and political movements.	July to Dec	12 @1 per wk.
CC (Sem 4)	CC 8 (Indian Political Thought -II)	Module 1-3 Module 2-4	Syed Ahmed Khan and Iqbal:colonialism and nationalism; Nehru: Socialism and Democracy; Subhas Ch. Bose: Socialism and Fascism	Feb to June	15 @1 per wk
CC (Sem 4)	CC 9 (Global Politics since 1945)	Module 2-4 and 5	India and her neighbours I: Pakistan; Bangladesh; India and her neighbours II: Nepal; Bhutan; Sri Lanka	Feb to June	26 @2 per wk
CC (Sem 4)	CC 10 (Western Political Thought and Theory)	NA	NA	NA	NA
CC (Sem 4)	SEC B1 (Legislative Practices and Procedures)	Module 2	Bills, Committees, People's representatives	Feb-June	12 @ 1 per wk.
GE (Sem 4)	GE 4 (International Relations)	Module 1-2 Module 2-3	Cold War-Origin, Phases, Détente Post Cold War era-new power centres	Feb-June	13 @1 per wk
CC (Sem 5)	CC 11 Western Political	NA	NA	NA	NA

	Thought and Theory II				
CC (Sem 5)	CC 12 Political Sociology	Module 1-2 Module 2-8,9	Political Culture and socialization Religion and politics, Military and politics	Aug-Dec	15 @ 1per wk
CC (Sem 5)	DSE A2 Understanding South Asia	Module 1-1 Module 2-3	South Asia- (a) Historical and Colonial Legacies (b) Geopolitics of South Asia; Identity politics: India, Nepal, Sri Lanka)	Aug-Dec	27 @ 2per wk
CC (Sem 5)	DSE B1 Indian Foreign Policy in a Globalising World	Module 2-4	India in South Asia: Debating Regional Strategies	Aug-Dec	24 @ 2per wk
CC (Sem 6)	CC 13 Public Administration-- Concepts and Perspectives	Module 1-4	Public Adm. In the era of globalization	Feb-June	15 @ 1per wk
CC (Sem 6)	CC 14 Administration and Public Policy in India	Module 1-3,4,5 Module 2-7	PMO, Cabinet Secretariat; Chief Secretary-relations between Secretariat and Directorate. DM. SDO, BDO. Planning CO.,ission. NDC, Niti Aayog	Feb-June	17 @ 1per wk
CC (Sem 6)	DSE A4 Understanding Global Politics	Module 2-c(iia and iib)	Global Inequalities, Conflict, War, Terrorism	Feb-June	28 @ 2per wk
CC (Sem 6)	DSE B3 Citizenship in a Globalising World	Module 2-3	Citizenship and Diversity	Feb-June	25 @ 2per wk

## Teaching Plan

**Department: Political Sc (Day)**

**Session: 2021-2022**

(Online classes held in one phase due to 2<sup>nd</sup> lockdown-data approximated)

**Name of the teacher: Siddhartha Dasgupta**

Course type (CC/ GE/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC(Sem 1)	CC1 (Understanding Political Theory: Concepts)	Module 2	Democracy (Held), Authoritarianism	Aug- Dec	25 @2per wk.
CC(Sem 1)	CC2 (Understanding Political Theory: Approaches and Debates)	Module 1	Normative, Legal- institutional, Empirical, Systems Analysis, Structural Functionalism	Aug- Dec	21 @2 per wk.
GE(Sem 1)	GE1 (Introduction to Political Theory)	Module 2	Fascism, Political parties, Interest groups: functions and role; Methods of representation:	Aug- Dec	13 @ 1 per wk.
CC (Sem 2)	CC3 (Constitutional Government in India)	NA	NA	NA	NA
CC(Sem 2)	CC4 (Politics in India: Structures and Processes)	Module 2	Religion, Language, Caste, Tribe, Regionalism, New Social Movements	Nov to April	28 @2 per wk.
GE(Sem 2)	GE2 Comparative Govt and Politics	Module-1-3; Module 2- 5	USA, Switzerland, France, Bangladesh	Nov to April	12 @1 per wk.
CC (Sem 3)	CC5 Indian Political Thought -1	Module-1	Ancient Indian Political Thought; Kautilya- Diplomacy, Saptanga, Dandaniti	July to Dec	15 @1 per wk.
CC (Sem 3)	CC 6 (Comparative Govt and Politics )	Module-1- 4,5 Module 2- 6	Classification of Political Systems, Parties, Unitary system.	July to Dec	34 @2per wk.

CC (Sem 3)	CC 7 (Perspectives on International Relations)	Module-2-4,5	Making of foreign policy, Major phases of Indian foreign policy.	July to Dec	17 @1per wk.
CC (Sem 3)	SEC A1 (Democratic Awareness through Legal literacy)	NA	NA	NA	NA
GE (Sem 3)	GE 3 (Government and Politics in India)	Module-2-11, 12.	Regionalism, social and political movements.	July to Dec	14 @1 per wk.
CC (Sem 4)	CC 8 (Indian Political Thought -II)	Module 1-3 Module 2-4	Syed Ahmed Khan and Iqbal:colonialism and nationalism; Nehru: Socialism and Democracy; Subhas Ch. Bose: Socialism and Fascism	Feb to June	16 @1 per wk
CC (Sem 4)	CC 9 (Global Politics since 1945)	Module 2-4 and 5	India and her neighbours I: Pakistan; Bangladesh; India and her neighbours II: Nepal; Bhutan; Sri Lanka	Feb to June	26 @2 per wk
CC (Sem 4)	CC 10 (Western Political Thought and Theory)	NA	NA	NA	NA
CC (Sem 4)	SEC B1 (Legislative Practices and Procedures)	Module 2	Bills, Committees, People's representatives	Feb-June	11 @ 1 per wk.
GE (Sem 4)	GE 4 (International Relations)	Module 1-2 Module 2-3	Cold War-Origin, Phases, Détente Post Cold War era-new power centres	Feb-June	12 @1 per wk
CC (Sem 5)	CC 11 Western Political	NA	NA	NA	NA

	Thought and Theory II				
CC (Sem 5)	CC 12 Political Sociology	Module 1-2 Module 2-8,9	Political Culture and socialization Religion and politics, Military and politics	Aug-Dec	15 @ 1per wk
CC (Sem 5)	DSE A2 Understanding South Asia	Module 1-1 Module 2-3	South Asia- (a) Historical and Colonial Legacies (b) Geopolitics of South Asia; Identity politics: India, Nepal, Sri Lanka)	Aug-Dec	27 @ 2per wk
CC (Sem 5)	DSE B1 Indian Foreign Policy in a Globalising World	Module 2-4	India in South Asia: Debating Regional Strategies	Aug-Dec	24 @ 2per wk
CC (Sem 6)	DSE 13 Public Administration-- Concepts and Perspectives	Module 1-4	Public Adm. In the era of globalization	Feb-June	15 @ 1per wk
CC (Sem 6)	DSE 14 Administration and Public Policy in India	Module 1-3,4,5 Module 2-7	PMO, Cabinet Secretariat; Chief Secretary-relations between Secretariat and Directorate. DM. SDO, BDO. Planning CO.,ission. NDC, Niti Aayog	Feb-June	17 @ 1per wk
CC (Sem 6)	DSE A4 Understanding Global Politics	Module 2-c(iia and iib)	Global Inequalities, Conflict, War, Terrorism	Feb-June	28 @ 2per wk
CC (Sem 6)	DSE B3 Citizenship in a Globalising World	Module 2-3	Citizenship and Diversity	Feb-June	25 @ 2per wk

## Teaching Plan

**Department: Political Sc (Day)**

**Session:2022-2023**

**Name of the teacher: Siddhartha Dasgupta**

<b>Course type (CC/ GE/SEC/AE CC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC(Sem 1)	CC1 (Understanding Political Theory: Concepts)	Module 2	Democracy (Held), Authoritarianism	Aug- Dec	27 @2 per wk.
CC(Sem 1)	CC2 (Understanding Political Theory: Approaches and Debates)	Module 1	Normative, Legal- institutional, Empirical, Systems Analysis, Structural Functionalism	Aug- Dec	24 @2 per wk.
GE(Sem 1)	GE1 (Introduction to Political Theory)	Module 2	Fascism, Political parties, Interest groups: functions and role; Methods of representation:	Aug- Dec	12 @ 1 per wk.
CC (Sem 2)	CC3 (Constitutional Government in India)	NA	NA	NA	NA
CC(Sem 2)	CC4 (Politics in India: Structures and Processes)	Module 2	Religion, Language, Caste, Tribe, Regionalism, New Social Movements	Nov to April	28 @2 per wk.
GE(Sem 2)	GE2 Comparative Govt and Politics	Module- 1-3; Module 2- 5	USA, Switzerland, France, Bangladesh	Nov to April	12 @1 per wk.
CC (Sem 3)	CC5 Indian Political Thought -1	Module-1	Ancient Indian Political Thought; Kautilya- Diplomacy, Saptanga, Dandaniti	July to Dec	14 @1 per wk.
CC (Sem 3)	CC 6 (Comparative Govt and Politics )	Module- 1-4,5 Module 2- 6	Classification of Political Systems, Parties, Unitary system.	July to Dec	33 @2per wk.

CC (Sem 3)	CC 7 (Perspectives on International Relations)	Module-2-4,5	Making of foreign policy, Major phases of Indian foreign policy.	July to Dec	15 @1per wk.
CC (Sem 3)	SEC A1 (Democratic Awareness through Legal literacy)	NA	NA	NA	NA
GE (Sem 3)	GE 3 (Government and Politics in India)	Module-2- 11, 12.	Regionalism, social and political movements.	July to Dec	12 @1 per wk.
CC (Sem 4)	CC 8 (Indian Political Thought -II)	Module 1-3 Module 2-4	Syed Ahmed Khan and Iqbal:colonialism and nationalism; Nehru: Socialism and Democracy; Subhas Ch. Bose: Socialism and Fascism	Feb to June	14 @1 per wk
CC (Sem 4)	CC 9 (Global Politics since 1945)	Module 2-4 and 5	India and her neighbours I: Pakistan; Bangladesh; India and her neighbours II: Nepal; Bhutan; Sri Lanka	Feb to June	25 @2 per wk
CC (Sem 4)	CC 10 (Western Political Thought and Theory)	NA	NA	NA	NA
CC (Sem 4)	SEC B1 (Legislative Practices and Procedures)	Module 2	Bills, Committees, People's representatives	Feb-June	11 @ 1 per wk.
GE (Sem 4)	GE 4 (International Relations)	Module 1-2 Module 2-3	Cold War-Origin, Phases, Détente Post Cold War era-new power centres	Feb-June	14 @1 per wk
CC (Sem 5)	CC 11 Western Political Thought and Theory II	NA	NA	NA	NA
CC (Sem 5)	CC 12 Political Sociology	Module 1-2 Module 2-8,9	Political Culture and socialization Religion and politics, Military and politics	Aug-Dec	14 @ 1per wk

CC (Sem 5)	DSE A2 Understanding South Asia	Module 1-1 Module 2-3	South Asia- (a) Historical and Colonial Legacies (b) Geopolitics of South Asia; Identity politics: India, Nepal, Sri Lanka)	Aug- Dec	29 @ 2per wk
CC (Sem 5)	DSE B1 Indian Foreign Policy in a Globalising World	Module 2-4	India in South Asia: Debating Regional Strategies	Aug- Dec	25 @ 2per wk
CC (Sem 6)	DSE 13 Public Administration-- Concepts and Perspectives	Module 1-4	Public Adm. In the era of globalization	Feb- June	13 @ 1per wk
CC (Sem 6)	DSE 14 Administration and Public Policy in India	Module 1-3,4,5 Module 2-7	PMO, Cabinet Secretariat; Chief Secretary-relations between Secretariat and Directorate. DM. SDO, BDO. Planning CO,,ission. NDC, Niti Aayog	Feb- June	16 @ 1per wk
CC (Sem 6)	DSE A4 Understanding Global Politics	Module 2- c(iia and iib)	Global Inequalities, Conflict, War, Terrorism	Feb- June	27 @ 2per wk
CC (Sem 6)	DSE B3 Citizenship in a Globalising World	Module 2-3	Citizenship and Diversity	Feb- June	23 @ 2per wk



**Department:** Political Science  
**Session: July 2018-June 2019**

**Name of the Teacher: Monalisa Mohanta**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
3 Years Honours Degree Course (1+1+1) Part 2	Paper 3	Government and Politics of India	Unit 2 1. Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Privileges, Committee system – Speaker. 2. Government in the states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions. 3. The Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism.	July-Sep Sep-Nov Nov-Dec Dec-Feb	3 classes per week-26 classes 3 classes per week-20 classes 3 classes per week-12 classes 3 classes per week-20 classes
	Paper 4	International Relations	Unit 3 Topic 3 Problems of developing countries: NAM – contemporary	July-Sep	3 Classes per week-32 classes

			relevance, Regionalism: ASEAN, AU (African Union), OPEC, SAFTA and SAARC Unit 4 Topic 3 UNO: Background; Organs with special reference to Security Council, General Assembly and Secretariat – role of the UNO in peace- keeping and human rights.		
Part 3	Paper 5	Western Political Thought	Unit 3 Topic 1,2 1. Hobbes: founder of the science of materialist politics. 2. Locke: founder of Liberalism: views on natural rights, property and consent.	July-Sep	3 Classes per week-32 classes
	Paper 7	Political Sociology	Unit 2 Topic 1,2 1. Gender and politics: basic issues. 2. Power, Authority and Legitimacy.  Unit 3 Topic 2,3 2. Political culture and Political socialization: nature, types and agencies. 3. Political participation: concept and types.	Sep-Nov	3 classes per week-26 classes
	Paper 8	Public Administration	Unit 3, Topic 1,2,3,4,5 1. Continuity and change in Indian administration: a brief historical outline. 2. The Civil Service in India (Bureaucracy): recruitment (role of UPSC, SPSC), training.	Dec-Feb	3 classes per week-32 classes

			<p>3. Organization of the Union Government: Secretariat Administration: PMO, Cabinet Secretariat. 4. Organization of the State Government: Chief Secretary – relationship between Secretariat and Directorate. 5. District Administration: changing role of District Magistrate. Unit 4 Topic 1,2,3,4</p> <p>1. Local Self Government: Corporations, Municipalities and Panchayats in West Bengal: structure and functions – 73rd and 74th Amendment: an overview. 2. Planning and plan administration: Planning Commission, National Development Council, District Planning. 3. Financial Administration: Public Accounts Committee, Estimates Committee – role of CAG. 4. Citizen and administration: functions of Lokpal Lokayukt.</p>		
CBCS Semester 1	CC 2	Understanding Political Theory, Approaches and Debates	<p>Module 2 Topic 6</p> <p>Revolution : Lenin and Mao, Hegemony and Civil Society : Gramsci</p>	July-Sep Sep-Nov	<p>3 classes per week-28 classes</p> <p>3 classes per week-22 classes</p>

	GE1	Introduction to Political Theory	Module 1 Topic 3 Foundational concepts: Law; Right; Liberty; Equality--- meanings, sources, interrelationships	Aug-Nov	1 class per week-10 classes
Semester 2	CC 3	Constitutional Government in India	Module 2 Topic 5,6,7,8 5.Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Parliamentary procedure, Privileges, Committee system. Speaker. 6.Government in states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions. 7.Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism. 8.Constitutional amendment. Major recommendations of National	Feb-Jun	3 classes per week-42 classes

			Commission to Review the Working of the Constitution		
	GE 2	Comparative Government and Politics	Module 2 Topic 4 4. PRC (1982 Constitution):(a) Significance of the Revolution (b) Basic features with special reference to General Principles(c) Communist Party: structure, functions, role (d) Rights and Duties of Citizen (e) The National Government: i) The Executive: President, Premier, State Council, ii) The Legislature: National People's Congress, Standing Committee iii) The Judiciary	Feb-May	1 class per week-14 classes

**Department:** Political Science  
**Session:** July 2019-June 2020

**Name of the Teacher:** MM

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes

Part 3	Paper 5	Western Political Thought	Unit 3 Topic 1,2 1. Hobbes: founder of the science of materialist politics. 2. Locke: founder of Liberalism: views on natural rights, property and consent.	July-Sep	3 classes per week-32 classes
	Paper 7	Political Sociology	Unit 2 Topic 1,2 1. Gender and politics: basic issues. 2. Power, Authority and Legitimacy.  Unit 3 Topic 2,3 2. Political culture and Political socialization: nature, types and agencies. 3. Political participation: concept and types.	Sep-Nov	3 classes per week-26 classes
	Paper 8	Public Administration	Unit 3, Topic 1,2,3,4,5 1. Continuity and change in Indian administration: a brief historical outline. 2. The Civil Service in India (Bureaucracy): recruitment (role of UPSC, SPSC), training. 3. Organization of the Union Government: Secretariat Administration: PMO, Cabinet Secretariat. 4. Organization of the State Government: Chief Secretary – relationship between Secretariat and Directorate. 5. District Administration: changing role of District Magistrate. Unit 4 Topic 1,2,3,4	Dec-Feb	3 classes per week-32 classes

			<p>1. Local Self Government: Corporations, Municipalities and Panchayats in West Bengal: structure and functions – 73rd and 74th Amendment: an overview. 2. Planning and plan administration: Planning Commission, National Development Council, District Planning. 3. Financial Administration: Public Accounts Committee, Estimates Committee – role of CAG. 4. Citizen and administration: functions of Lokpal Lokayukt.</p>		
Semester 3	CC6	Comparative Government and Politics	<p>Module 2 Topic 7,8,9,10  7. Legislature in UK, USA and PRC: composition and functions of legislative chambers; Committee System in UK and USA  8. Executive in UK, USA, France and Russia: A comparative study of (i) Russian, French and American Presidency; (ii) British and French cabinet systems.  9. Judiciary in UK, USA and PRC (with focus on the Procuratorate): comparative study.  10. Rights of the citizens of UK, USA and PRC: A comparative study.</p>	July-Aug Sep-Oct	24 classes

	CC7	Perspective on International Relations	Module 1 topic 3 3. Emergent issues: (a) Development (b) Environment (c) Terrorism (d) Migration Module 1 Topic 6 6. Sino-Indian relations; Indo-US relations	Nov-Dec	9 classes
Semester 4	CC9	Global Politics Since 1945	Module 1 Topic 3 ASEAN, OPEC, SAFTA, SAARC, BRICS. Module 2 Topic 6 UNO: background; Major organs--- General Assembly, Security Council and Secretariat (with focus on Secretary General). Role of UNO in peace-keeping, human rights, and development (Millennium Development Goals and Sustainable Development Goals).	Feb-April	30 classes
	CC10	Western Political Thought	Module 1 Topic 1 1. Greek political thought: main features – Plato: justice, communism – Aristotle: state, classifications of constitutions	April-June	22 classes
	GE4	International Relations	Module 1 Topic 1 Module I 1. International Relations as a	Feb-May	12 classes



			field of study. Approaches: (a) Classical Realism (Hans Morgenthau) and Neo-Realism (Kenneth Waltz) (b)Neo- Liberalism: Complex Interdependence (Robert O. Keohane and Joseph Nye) (c) Structural Approaches: World Systems Approach (Immanuel Wallerstein) and Dependency School (Andre Gunder Frank)		
Semester 1	CC 2	Understanding Political Theory, Approaches and Debates	Module 2 Topic 6 Revolution : Lenin and Mao, Hegemony and Civil Society : Gramsci	July-Sep Sep-Nov	3 classes per week-28 classes 3 classes per week-22 classes
	GE1	Introduction to Political Theory	Module 1 Topic 3 3. Foundational concepts: Law; Right; Liberty; Equality--- meanings, sources, interrelationship s	Aug-Nov	1 class per week-10 classes
Semester 2	CC 3	Constitutional Government in India	Module 2 Topic 5,6,7,8 5.Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Parliamentary procedure,	Feb-Jun	3 classes per week-42 classes

			<p>Privileges, Committee system. Speaker.</p> <p>6. Government in states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions.</p> <p>7. Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism.</p> <p>8. Constitutional amendment. Major recommendations of National Commission to Review the Working of the Constitution</p>		
	GE 2	Comparative Government and Politics	<p>Module 2 Topic 4</p> <p>4. PRC (1982 Constitution): (a) Significance of the Revolution (b) Basic features with special reference to General Principles (c) Communist Party: structure, functions, role (d) Rights and Duties of Citizen (e) The National Government: i) The Executive: President, Premier, State Council, ii) The</p>	Feb-May	1 class per week-14 classes

			Legislature: National People' Congress ,Standing Committee iii) The Judiciary.		
--	--	--	---	--	--

**Department: Political Science**  
**Session: July 2020-June 2021**

**Name of the Teacher: MM**

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester 5	CC 12	Political Sociology	Module 1 Topic 2,3 2. Political culture and Political socialization: nature, types and agencies. 3. Political participation: concept and types.	July-Aug	12 classes
	DSE- A2	Understanding South Asia	Module 2 Topic 4 IV. Regional Issues and Challenges (a) South Asian Association for Regional Cooperation (SAARC): problems and prospects (b)Terrorism: Political and Social Consequences in South Asia; (c) Refugee crisis.	Sep-Dec	36 classes

Semester 6	CC 13	Public Administration: Concepts and Perspectives	Module 1 Topic 1,2,3,4 1. Nature, Scope and Evolution of Public Administration – Private and Public Administration. Principles of Socialist Management. 2. Challenges to discipline of Public Administration and responses: New Public Administration, Comparative Public Administration, Development Administration (Indian context). 3. Major concepts of administration: (a) Hierarchy (b) Unity of Command (c) Span of Control (d) Authority (e) Centralization, Decentralization and Delegation (f) Line and Staff	Feb-April	30 classes
	CC14	Administration and Public Policy In India	Module 2 Topic 9, 10 8. Financial Administration: Public Accounts Committee, Estimates Committee – role of CAG. 9. Citizen and administration: functions of Lokpal and Lokayukt. Right to Information--- Citizen Charter. 10. Citizen and social welfare policies: MGNREGA; Sarva Shiksha Abhiyan (SSA); National Health Mission (NRHM).	April-June	30 classes

	DSE-A4	Understanding Global Politics	Module 1 Topic 1 (b) The Global Economy	June	6 classes
Semester 3	CC6	Comparative Government and Politics	Module 2 Topic 7,8,9,10 7. Legislature in UK, USA and PRC: composition and functions of legislative chambers; Committee System in UK and USA 8. Executive in UK, USA, France and Russia: A comparative study of (i) Russian, French and American Presidency; (ii) British and French cabinet systems. 9. Judiciary in UK, USA and PRC (with focus on the Procuratorate): comparative study. 10. Rights of the citizens of UK, USA and PRC: A comparative study.	July-Aug Sep-Oct	24 classes
Semester 4	CC7	Perspective on International Relations	Module 1 topic 3 3. Emergent issues: (a) Development (b) Environment (c) Terrorism (d) Migration Module 1 Topic 6 6. Sino-Indian relations; Indo-US relations	Nov-Dec	9 classes
	CC9	Global Politics Since 1945	Module 1 Topic 3 ASEAN, OPEC, SAFTA, SAARC, BRICS. Module 2 Topic 6	Feb-April	30 classes
	CC10	Western Political Thought	Module 1 Topic 1 1. Greek political thought: main features –	April-June	22 classes

			Plato: justice, communism – Aristotle: state, classifications of constitutions		
Semester 1	GE4	International Relations	Module 1 Topic 1 Module I 1. International Relations as a field of study. Approaches: (a) Classical Realism (Hans Morgenthau) and Neo-Realism (Kenneth Waltz) (b)Neo-Liberalism: Complex Interdependence (Robert O. Keohane and Joseph Nye) (c) Structural Approaches: World Systems Approach (Immanuel Wallerstein) and Dependency School (Andre Gunder Frank)	Feb-May	12 classes
	CC 2	Understanding Political Theory, Approaches and Debates	Module 2 Topic 6 Revolution : Lenin and Mao, Hegemony and Civil Society : Gramsci	July-Sep Sep-Nov	3 classes per week-28 classes 3 classes per week-22 classes
	GE1	Introduction to Political Theory	Module 1 Topic 3 3. Foundational concepts: Law; Right; Liberty; Equality--- meanings, sources, interrelationships	Aug-Nov	1 class per week-10 classes

Semester 2	CC 3	Constitutional Government in India	Module 2 Topic 5,6,7,8 5.Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Parliamentary procedure, Privileges, Committee system. Speaker. 6.Government in states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions. 7.Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism. 8.Constitutional amendment. Major recommendations of National Commission to Review the Working of the Constitution	Feb-Jun	3 classes per week-42 classes
	GE 2	Comparative Government and Politics	Module 2 Topic 4 4. PRC (1982 Constitution):(a) Significance of the Revolution (b) Basic features with special reference to General	Feb-May	1 class per week-14 classes

			Principles(c) Communist Party: structure, functions, role (d) Rights and Duties of Citizen (e) The National Government: i) The Executive: President, Premier, State Council, ii) The Legislature: National People' Congress ,Standing Committee iii) The Judiciary.		

**Department:** Political Science  
**Session: July 2021-June 2022**

**Name of the Teacher: MM**

Course type (CC/ GE/SEC/AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester 5	CC 12	Political Sociology	Module 1 Topic 2,3 2. Political culture and Political socialization: nature, types and agencies. 3. Political participation: concept and types.	July-Aug	12 classes
	DSE- A2	Understanding South Asia	Module 2 Topic 4 IV. Regional Issues and Challenges (a) South Asian Association for Regional Cooperation	Sep-Dec	36 classes



			(SAARC): problems and prospects (b) Terrorism: Political and Social Consequences in South Asia; (c) Refugee crisis.		
Semester 6	CC 13	Public Administration: Concepts and Perspectives	Module 1 Topic 1,2,3,4 1. Nature, Scope and Evolution of Public Administration – Private and Public Administration. Principles of Socialist Management. 2. Challenges to discipline of Public Administration and responses: New Public Administration, Comparative Public Administration, Development Administration (Indian context). 3. Major concepts of administration: (a) Hierarchy (b) Unity of Command (c) Span of Control (d) Authority (e) Centralization, Decentralization and Delegation (f) Line and Staff	Feb-April	30 classes
	CC14	Administration and Public Policy In India	Module 2 Topic 9, 10 8. Financial Administration: Public Accounts Committee, Estimates Committee – role of CAG. 9. Citizen and administration: functions of Lokpal and Lokayukt. Right to Information--- Citizen Charter. 10. Citizen and social welfare	April-June	30 classes

			policies: MGNREGA; Sarva Shiksha Abhiyan (SSA); National Health Mission (NRHM).		
	DSE-A4	Understanding Global Politics	Module 1 Topic 1 (b) The Global Economy	June	6 classes
Semester 3	CC6	Comparative Government and Politics	Module 2 Topic 7,8,9,10 7. Legislature in UK, USA and PRC: composition and functions of legislative chambers; Committee System in UK and USA 8. Executive in UK, USA, France and Russia: A comparative study of (i) Russian, French and American Presidency; (ii) British and French cabinet systems. 9. Judiciary in UK, USA and PRC (with focus on the Procuratorate): comparative study. 10. Rights of the citizens of UK, USA and PRC: A comparative study.	July-Aug Sep-Oct	24 classes
	CC7	Perspective on International Relations	Module 1 topic 3 3. Emergent issues: (a) Development (b) Environment (c) Terrorism (d) Migration Module 1 Topic 6 6. Sino-Indian relations; Indo-US relations	Nov-Dec	9 classes

Semester 4	CC9	Global Politics Since 1945	Module 1 Topic 3 ASEAN, OPEC, SAFTA, SAARC, BRICS.	Feb-April	30 classes
	CC10	Western Political Thought	Module 2 Topic 6 Module 1 Topic 1 1. Greek political thought: main features – Plato: justice, communism – Aristotle: state, classifications of constitutions	April-June	22 classes
	GE4	International Relations	Module 1 Topic 1 Module I 1. International Relations as a field of study. Approaches: (a) Classical Realism (Hans Morgenthau) and Neo-Realism (Kenneth Waltz) (b)Neo-Liberalism: Complex Interdependence (Robert O. Keohane and Joseph Nye) (c) Structural Approaches: World Systems Approach (Immanuel Wallerstein) and Dependency School (Andre Gunder Frank)	Feb-May	12 classes
Semester 1	CC 2	Understanding Political Theory, Approaches and Debates	Module 2 Topic 6 Revolution : Lenin and Mao, Hegemony and Civil Society : Gramsci	July-Sep Sep-Nov	3 classes per week-28 classes 3 classes per week-22 classes

	GE1	Introduction to Political Theory	Module 1 Topic 3 3. Foundational concepts: Law; Right; Liberty; Equality--- meanings, sources, interrelationships	Aug-Nov	1 class per week-10 classes
Semester 2	CC 3	Constitutional Government in India	Module 2 Topic 5,6,7,8 5.Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Parliamentary procedure, Privileges, Committee system. Speaker. 6.Government in states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions. 7.Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism. 8.Constitutional amendment. Major recommendations of National Commission to Review the Working of the Constitution	Feb-Jun	3 classes per week-42 classes

	GE 2	Comparative Government and Politics	Module 2 Topic 4 4. PRC (1982 Constitution):(a) Significance of the Revolution (b) Basic features with special reference to General Principles(c) Communist Party: structure, functions, role (d) Rights and Duties of Citizen (e) The National Government: i) The Executive: President, Premier, State Council, ii) The Legislature: National People' Congress ,Standing Committee iii) The Judiciary.	Feb-May	1 class per week-14 classes
--	------	-------------------------------------	--	---------	-----------------------------

**Department:** Political Science  
**Session: July 2022-June 2023**

**Name of the Teacher: MM**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester 5	CC 11	Western Political Thought and Theory 2	Module 2 Topic 4,5,6 4. Utopian and Scientific	July-Aug	12 classes

			Socialism: basic characteristics. 5. Varieties of non-Marxist socialism: Fabianism, Syndicalism, Guild Socialism. 6. Anarchism: overview		
	CC 12	Political Sociology	Module 1 Topic 2,3 2. Political culture and Political socialization: nature, types and agencies. 3. Political participation: concept and types.	Sep-Dec	36 classes
Semester 6	CC 13	Public Administration: Concepts and Perspectives	Module 1 Topic 1,2,3,4 1. Nature, Scope and Evolution of Public Administration – Private and Public Administration. Principles of Socialist Management. 2. Challenges to discipline of Public Administration and responses: New Public Administration, Comparative Public Administration, Development Administration (Indian context). 3. Major concepts of administration: (a) Hierarchy (b) Unity of Command (c) Span of Control (d) Authority (e) Centralization, Decentralization and Delegation (f) Line and Staff	Feb-April	30 classes
	CC14	Administration and Public Policy In India	Module 2 Topic 9, 10 8. Financial Administration: Public Accounts Committee, Estimates Committee – role	April-June	30 classes

			of CAG. 9. Citizen and administration: functions of Lokpal and Lokayukt. Right to Information--- Citizen Charter. 10. Citizen and social welfare policies: MGNREGA; Sarva Shiksha Abhiyan (SSA); National Health Mission (NRHM).		
Semester 3	CC6	Comparative Government and Politics	Module 2 Topic 7,8,9,10 7. Legislature in UK, USA and PRC: composition and functions of legislative chambers; Committee System in UK and USA 8. Executive in UK, USA, France and Russia: A comparative study of (i) Russian, French and American Presidency; (ii) British and French cabinet systems. 9. Judiciary in UK, USA and PRC (with focus on the Procuratorate): comparative study. 10. Rights of the citizens of UK, USA and PRC: A comparative study.	July-Aug Sep-Oct	24 classes
	CC7	Perspective on International Relations	Module 1 topic 3 3. Emergent issues: (a) Development (b) Environment (c) Terrorism (d) Migration Module 1 Topic 6 6. Sino-Indian relations; Indo-US relations	Nov-Dec	9 classes

Semester 4	CC9	Global Politics Since 1945	Module 1 Topic 3 ASEAN, OPEC, SAFTA, SAARC, BRICS.	Feb-April	30 classes
	CC10	Western Political Thought	Module 2 Topic 6 Module 1 Topic 1 1. Greek political thought: main features – Plato: justice, communism – Aristotle: state, classifications of constitutions	April-June	22 classes
	GE4	International Relations	Module 1 Topic 1 Module I 1. International Relations as a field of study. Approaches: (a) Classical Realism (Hans Morgenthau) and Neo-Realism (Kenneth Waltz) (b)Neo-Liberalism: Complex Interdependence (Robert O. Keohane and Joseph Nye) (c) Structural Approaches: World Systems Approach (Immanuel Wallerstein) and Dependency School (Andre Gunder Frank)	Feb-May	12 classes
Semester 1	CC 2	Understanding Political Theory, Approaches and Debates	Module 2 Topic 6 Revolution : Lenin and Mao, Hegemony and Civil Society : Gramsci	July-Sep Sep-Nov	3 classes per week-28 classes 3 classes per week-22 classes



	GE1	Introduction to Political Theory	Module 1 Topic 3 3. Foundational concepts: Law; Right; Liberty; Equality--- meanings, sources, interrelationships	Aug-Nov	1 class per week-10 classes
Semester 2	CC 3	Constitutional Government in India	Module 2 Topic 5,6,7,8 5.Union Legislature: Rajya Sabha, Lok Sabha: Organisation, Functions – Lawmaking procedure, Parliamentary procedure, Privileges, Committee system. Speaker. 6.Government in states: Governor, Chief Minister and Council of Ministers: position and functions – State Legislature: composition and functions. 7.Judiciary: Supreme Court and the High Courts: composition and functions – Judicial activism. 8.Constitutional amendment. Major recommendations of National Commission to Review the Working of the Constitution	Feb-Jun	3 classes per week-42 classes

	GE 2	Comparative Government and Politics	<p>Module 2 Topic 4</p> <p>4. PRC (1982 Constitution):(a) Significance of the Revolution (b) Basic features with special reference to General Principles(c) Communist Party: structure, functions, role (d) Rights and Duties of Citizen (e) The National Government: i) The Executive: President, Premier, State Council, ii) The Legislature: National People' Congress ,Standing Committee iii) The Judiciary.</p>	Feb-May	1 class per week-14 classes
--	------	-------------------------------------	---	---------	-----------------------------

# Department: Political Science Session: July 2018- June 2019

**Name of the teacher: Soma Bhattacharyya**

Course type (CC/ GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
3 Years Honours Degree Course (1+1+1)- Part 2	Paper 3	Gover nment and Polit ics in India	Unit 1 Topic1,2,3,4  (1.Framing of the Indian Constitution: Role of the Constituent Assembly – the Preamble. 2. Fundamental Rights and Duties – Directive Principles.  3. Nature of Indian Federalism: Union-State Relations.  4. Union Executive: President, Vice-President: election, position, functions (with reference to Emergency Powers), Prime Minister, Council of Ministers, relationship of Prime Minister and President.)	July to Sep  Sep to Nov  Nov to Dec  Dec to Feb	3 classes per week-26 classes  3 classes per week-20 classes  3 classes per week-12 classes  3 classes per week-20 classes
Part 3	Paper 5	West ern Polit ical Thoug ht	Unit 1 Topic 1, 2 Unit 3 Topic 4 Unit 4 Topic 1,2	July to Sep	3 classes per week-32 classes
Part 3	Paper 6	Indian Polit ical Thoug ht	Unit 1 Topic 2 Unit 2 Topic 2, 3	Sep to Nov	3 classes per week-26 classes
Part 3	Paper 8	Public Admin istratio n	Unit 1 Topic 1,2,3,4 Unit 2 Topic 1,2,3	Dec to Feb	3 classes per week-32 classes

Semester 1 (CBCS)	CC 1	Understanding Political Theory and Concepts	Module 1, Topic 3.(Key concepts II: Law. Liberty, Equality--- interrelationships) Module 2 Topic 4(Rights; Justice (with special reference to Rawls); Freedom.)	July to Sep	3 classes per week-28 classes
	CC 2	Understanding Political Theory, Approaches and Debates	Module 1 Topic 3 (Feminist) Module 2 Topic 6 (Party-Democratic Centralism, Lenin-Rosa Debate)	Sep to Nov	3 classes per week-22 classes
	GE 1	Introduction to Political Theory	Module 2 Topic 5	Aug to Nov	1 class per week-10 classes
Semester 2 (CBCS)	CC 3	Constitutional Government in India	Module 1 Topic 1,2,3,4 (1.Evolution of the Indian Constitution. Role of the Constituent Assembly--- debates (overview). The Preamble. 2.Citizenship. Fundamental Rights and Duties. Directive Principles. 3.Nature of Indian Federalism: Union-State Relations. 4.Union Executive: President, Vice-President: election, position, functions (focus on Emergency Powers), Prime Minister, Council of Ministers, relationship of Prime Minister and President.	Feb to June	3 classes per week&12 classes per topic- 42 classes

	GE 2	Comparative Government and Politics	Module 1 Topic 2 ( UK)	Feb to May	1 class per week-14 classes
--	------	-------------------------------------	------------------------	------------	-----------------------------

**Department: Session: July 2019-June 2020**

**Name of the teacher: Soma Battacharyya**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
3 Years Honours Degree Course (1+1+1)- Part 3	Paper 5	Western Political Thought	Unit 1 Topic 1, 2 Unit 3 Topic 4 Unit 4 Topic 1,2	July to Sep	3 classes per week-32 classes.
Part 3	Paper 6	Indian Political Thought	Unit 1 Topic 2 Unit 2 Topic 2, 3	Sep to Nov	3 classes per week-26 classes
Part 3	Paper 8	Public Administration	Unit 1 Topic 1,2,3,4 Unit 2 Topic 1,2,3	Dec to Feb	3 classes per week-32 classes
Semester 3 (CBCS)	CC 5	Indian Political Thought	Module 1 Topic 1,3 Module 2 Topic 5	Jul to Aug	3 classes per week-12 classes

	CC 6	Comparative Government and Politics	Module 1 Topic 5(Political Parties)	Sep to Oct	3 classes per week-12classes
	CC 7	Perspectives on International Relations	Module 2 Topic 5	Nov to Dec	3 classes per week-9 classes
	GE 3	Government and Politics in India	Module 1 Topic 1	Aug to Nov	1 class per week-12 classes
Semester 4 (CBCS)	CC 8	Indian Political Thought 2	Module 1 Topic 1,2 (1. M.N. Roy: Radical Humanism. 2. Narendra Deva, Ram Manohar Lohia, Jayaprakash Narayan: Socialist ideas.)	Feb to April	3 classes per week-30 classes
	CC 10	Western Political Thought and Theory 1	Module 1 Topic 2( Roman political thought: theories of Law and Citizenship – contributions of Roman thought.)	April to June	3 classes per week-22 classes
	GE 4	International Relations	Module 1 Topic 2	Feb to May	1 class per week-12 classes
Semester 1 (CBCS)	CC 1	Understanding Political Theory and Concept	Module 1, Topic 3 Module 2 Topic 4	July to Sep	3 classes per week-28 classes
	CC 2	Understanding Political Theory, Approaches and Debates	Module 1 Topic 3 (Feminist) Module 2 Topic 6 (Party-Democratic Centralism, Lenin-Rosa Debate)	Sep to Nov	3 classes per week-22 classes
	GE 1	Introduction to Political Theory	Module 2 Topic 5	Aug to Nov	1 class per week-10 classes
Semester 2(CBCS)	CC 3	Constitutional Government	Module 1 Topic 1,2,3,4 (1.Evolution of the Indian Constitution. Role of the Constituent Assembly---debates (overview). The Preamble. 2.Citizenship.	Feb to June	3 classes per week&12 clsses per topic- 42 classes

			Fundamental Rights and Duties. Directive Principles. 3.Nature of Indian Federalism: Union-State Relations. 4.Union Executive: President, Vice-President: election, position, functions (focus on Emergency Powers), Prime Minister, Council of Ministers, relationship of Prime Minister and President.)		
	GE 2	Comparative Government and Politics	Module 1 Topic 2 ( UK)	Feb to May	1 class per week-14 classes

**Department: Session: July 2020-June 2021**

**Name of the teacher: Soma Bhattacharyya**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester 1 (CBCS)	CC 1	Understanding Political Theory and Concept	Module 1, Topic 3.(Key concepts II: Law. Liberty, Equality--- interrelationships) Module 2 Topic 4(Rights; Justice (with special reference to Rawls); Freedom.)	July to Sep	3 classes per week-28 classes
	CC 2	Understanding Political Theory, Approaches and Debates	Module 1 Topic 3 (Feminist) Module 2 Topic 6 (Party-Democratic Centralism, Lenin-Rosa Debate)	Sep to Nov	3 classes per week-22 classes
	GE 1	Introduction to Political Theory	Module 2 Topic 5	Aug to Nov	1 class per week-10 classes
Semester 2 (CBCS)	CC 3	Constitutional Government in India	Module 1 Topic 1,2,3,4 (1.Evolution of the Indian Constitution. Role of the Constituent Assembly--- debates (overview). The Preamble. 2.Citizenship.	Feb to June	3 classes per week&12 classes per tonic- 42

	GE 2	Comparative Government and Politics	Module 1 Topic 2 ( UK)	Feb to May	1 class per week-14 classes
Semester 3 (CBCS)	CC 5	Indian Political Thought	Module 1 Topic 1,3 Module 2 Topic 5	Jul to Aug	3 classes per week-12 classes
	CC 6	Comparative Government and Politics	Module 1 Topic 5(Political Parties)	Sep to Oct	3 classes per week-12 classes
	CC 7	Perspectives on International Relations	Module 2 Topic 5	Nov to Dec	3 classes per week-9 classes
	GE 3	Government and Politics in India	Module 1 Topic 1	Aug to Nov	1 class per week-12 classes
Semester 4 (CBCS)	CC 8	Indian Political Thought 2	Module 1 Topic 1,2 (1. M.N. Roy: Radical Humanism. 2. Narendra Deva, Ram Manohar Lohia, Jayaprakash Narayan:	Feb to April	3 classes per week-30 classes
	CC 10	Western Political Thought and Theory 1	Module 1 Topic 2( Roman political thought: theories of Law and Citizenship – contributions of Roman thought.)	April to June	3 classes per week-22 classes
	GE 4	International Relations	Module 1 Topic 2	Feb to May	1 class per week-12 classes
Semester 5 (CBCS)	CC 11	Western Political Thought and Theory 2	Module 1 Topic 1(. Bentham: Utilitarianism. John Stuart Mill: views on liberty and representative government.) Module 2 Topic 4 (Utopian and Scientific Socialism:	July to Sep	3 classes per week-24 classes



	CC12	Political Sociology	Module 2 Topic 7 (Gender and politics: basic issues.)	Sep to Nov	3 classes per week-18 classes
	DSE-B1	Indian Foreign Policy in a Globalising World	Module 1 Topic 1,(India's Foreign Policy: From a Postcolonial State to an Aspiring Global Power	Oct to Dec	3 classes per week-19 classes
Semester 6	CC 13	Public Administration: Concept and Perspectives	Module 2 Topic 5,6,7(5. Bureaucracy: views of Marx and Weber. 6. Ecological approach to Public Administration: Riggsian Model. 7. Administrative Processes: (a) Decision making (b) Communication	Feb to April	3 classes per week-30 classes
	CC 14	Administration and Public Policy in India	Module 2 Topic 6,7,8(6.Local Self Government: Corporations, Municipalities and Panchayats in West Bengal, structure and functions. 73rd and 74th Amendment: overview. 7. Planning: Planning Commission, National Development Council. District Planning. Changing nature of planning: NITI Ayog. Budget--- concept and	April to June	3 classes per week-30 classes
	DSE- B3	Citizenship in a Globalising World	Module 1 Topic 1	June	3 classes per week-6 classes

**Department: Session: July 2021-June 2022**

**Name of the teacher: Soma Bhattacharyya**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester 1 (CBCS)	CC 1	Understanding Political Theory and Concept	Module 1, Topic 3.(Key concepts II: Law. Liberty, Equality--- interrelationships) Module 2 Topic 4(Rights; Justice (with special reference to Rawls); Freedom.)	July to Sep	3 classes per week-28 classes
	CC 2	Understanding Political Theory, Approaches and Debates	Module 1 Topic 3 (Feminist) Module 2 Topic 6 (Party-Democratic Centralism, Lenin-Rosa Debate)	Sep to Nov	3 classes per week-22 classes
	GE 1	Introduction to Political Theory	Module 2 Topic 5	Aug to Nov	1 class per week-10 classes
Semester 2 (CBCS)	CC 3	Constitutional Government in India	Module 1 Topic 1,2,3,4 (1.Evolution of the Indian Constitution. Role of the Constituent Assembly--- debates (overview). The Preamble. 2.Citizenship.	Feb to June	3 classes per week&12 classes per tonic- 42
	GE 2	Comparative Government and Politics	Module 1 Topic 2 ( UK)	Feb to May	1 class per week-14 classes
Semester 3 (CBCS)	CC 5	Indian Political Thought	Module 1 Topic 1,3 Module 2 Topic 5	Jul to Aug	3 classes per week-12 classes

	CC 6	Comparative Government and Politics	Module 1 Topic 5(Political Parties)	Sep to Oct	3 classes per week-12classes
	CC 7	Perspectives on International Relations	Module 2 Topic 5	Nov to Dec	3 classes per week-9 classes
	GE 3	Government and Politics in India	Module 1 Topic 1	Aug to Nov	1 class per week-12 classes
Semester 4 (CBCS)	CC 8	Indian Political Thought 2	Module 1 Topic 1,2 (1. M.N. Roy: Radical Humanism. 2. Narendra Deva, Ram Manohar Lohia, Jayaprakash Narayan:	Feb to April	3 classes per week-30 classes
	CC 10	Western Political Thought and Theory 1	Module 1 Topic 2( Roman political thought: theories of Law and Citizenship – contributions of Roman thought.)	April to June	3 classes per week-22 classes
	GE 4	International Relations	Module 1 Topic 2	Feb to May	1 class per week-12 classes
Semester 5 (CBCS)	CC 11	Western Political Thought and Theory 2	Module 1 Topic 1(. Bentham: Utilitarianism. John Stuart Mill: views on liberty and representative government.) Module 2 Topic 4 (Utopian and Scientific Socialism:	July to Sep	3 classes per week-24 classes
	CC12	Political Sociology	Module 2 Topic 7 (Gender and politics: basic issues.)	Sep to Nov	3 classes per week-18 classes

	DSE-B1	Indian Foreign Policy in a Globalising World	Module 1 Topic 1,(India's Foreign Policy: From a Postcolonial State to an Aspiring Global Power	Oct to Dec	3 classes per week-19 classes
Semester 6	CC 13	Public Administration: Concept and Perspectives	Module 2 Topic 5,6,7(5. Bureaucracy: views of Marx and Weber. 6. Ecological approach to Public Administration: Riggsian Model. 7. Administrative Processes: (a) Decision making (b) Communication	Feb to April	3 classes per week-30 classes
	CC 14	Administration and Public Policy in India	Module 2 Topic 6,7,8(6.Local Self Government: Corporations, Municipalities and Panchayats in West Bengal, structure and functions. 73rd and 74th Amendment: overview. 7. Planning: Planning Commission, National Development Council. District Planning. Changing nature of planning: NITI Ayog. Budget--- concept and significance. 8. Financial Administration: Public Accounts Committee, Estimates Committee – role of CAG)	April to June	3 classes per week-30 classes
	DSE- B3	Citizenship in a Globalising World	Module 1 Topic 1	June	3 classes per week-6 classes

## Teaching Plan

**Department:**        **Physics**

**Session: 2018-19**

**Name of the teacher: Dr. Arabinda Chowdhury**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours (1+1+1)	Part-II: Paper-3 (Unit-1) - Electronics	<i>Operational amplifier</i>	Properties of ideal OP-AMP, differential amplifiers, CMRR, inverting and non-inverting amplifiers,	July	3
			mathematical operations	Aug	1
		<i>Combinational logic</i>	Half adder, full adder, digital comparator	Aug	3
			decoder, encoder (ROM), multiplexure	Sep	1
		<i>Sequential logic</i>	Flip-flops- RS, D, JK, JKMS flip-flops,	Sep	3
			edge triggering. Shift register, ripple counter( binary and decade).	Nov	2
	Part-II: Paper-3 (Unit-2) - WAVES & OPTICS II	<i>Polarisation</i>	Different states of polarisation; double refraction, Huygen's construction for uniaxial crystals; polaroids and their uses.	Jan	3
			Production and analysis of plane, circularly and elliptically polarised light by retardation plates and	Feb	3
			rotatory polarisation and optical activity; Fresnel's explanation of optical activity; Biquartz and half shade polarimeter.	Mar	2
	Part-III: Paper VIIA Unit-I - Statistical Mechanics	<i>Microstates and macrostates</i>	Classical description in terms of phase space and quantum description in terms of wave functions. Hypothesis of equal <i>a priori</i> probability for microstates of an isolated system in equilibrium. Interactions between two systems – thermal, mechanical and diffusive. Statistical definition of temperature, pressure, entropy and chemical potential. Partition function of a system in thermal equilibrium with a heat bath.	Jul	6
		<i>Classical statistical mechanics</i>	Maxwell-Boltzmann distribution law. Calculation of thermodynamic quantities for ideal monoatomic gases.	Aug	2
		<i>Motivations for quantum statistics</i>	Gibbs' paradox. Identical particle and symmetry requirement. Derivation of MB, FD and BE statistics as the most probable distributions (micro-canonical ensemble). Classical limit of quantum statistics.	Aug	6

		<i>Quantum statistical mechanics</i>	Bose-Einstein statistics: Application to radiation – Planck's law. Rayleigh Jeans and Wien laws as limiting cases, Stefan's law. Fermi-Dirac statistics: Fermi distribution at zero and non-zero temperatures. Fermi energy and its expression in terms of particle density. Degenerate and non-degenerate Fermi gas. Electron specific heat of metals at low temperature. Saha equation for thermal ionization and its application to astrophysics.	Sep	8
Honours (1+1+1)	Part-III: Paper VIIA Unit-I – Electro- magnetic Theory	<i>Generalization of Ampere's Law</i>	Displacement Current, Maxwell's Field Equations, Wave equation for electromagnetic (EM) field and its solution – plane wave and spherical wave solutions, density of field, Poynting vector Transverse nature of field, relation between <b>E</b> and <b>B</b> ; energy Poynting's theorem, boundary conditions.	Nov	8
		<i>EM Waves in an isotropic dielectric</i>	Wave equation, reflection and refraction at plane boundary, reflection and transmission coefficients, Fresnel's formula, change of phase on reflection, polarization on reflection and Brewster's law, total internal reflection.	Jan	6
		<i>EM waves in conducting medium</i>	Wave equation in conducting medium, reflection and transmission at metallic surface – skin effect and skin depth, propagation of E-M waves between parallel and conducting plates – wave guides (rectangular only).	Feb	5
		<i>Dispersion</i>	Equation of motion of an electron in a radiation field : Lorentz theory of dispersion – normal and anomalous; Sellmeier's and Cauchy's formulae, absorptive and dispersive mode, half power frequency, band width.	Feb	3
		<i>Scattering</i>	Scattering of radiation by a bound charge, Rayleigh's scattering (qualitative ideas), blue of the sky, absorption.	Mar	3
General (1+1+1)	Part-II Paper IIIA Unit I: Physical Optics	<i>Light as an electromagnetic wave</i>	Full electromagnetic spectrum, properties of electromagnetic waves, Huygens' principle --- explanation of the laws of reflection and refraction.	July	4
		<i>Interference of light</i>	Young's experiment, intensity distribution, conditions of interference, interference in thin films, Newton's ring	Aug	4
		<i>Diffraction</i>	Fresnel and Fraunhofer class, Fresnel's half-period zones, zone plate. Fraunhofer diffraction due to a single slit and plane	Sep	4

			transmission grating (elementary theory), resolving power.		
		<i>Polarisation</i>	Different states of polarisation, Brewster's law, double refraction, retardation plate, polaroid, optical activity.	Nov	4
	Part-III Paper IVA	Energy Sources	<i>Conventional energy sources</i> : thermal power plant, relevance of Rankine cycle (qualitative discussion), steam turbine, hydro-electric power plant --- basic principle.	Jan	4
			<i>Non-conventional energy sources</i> : solar, wind, tidal, geothermal, and biogas sources, elementary idea of production and uses.	Feb	4
		Electronics	<i>Feedback</i> : Basic principle, positive and negative feedback, Barkhausen criterion, oscillator, OPAMP : characteristics, uses of OPAMP as amplifier, oscillator, and filter; light-emitting diodes, 7-segment display, SCR, diac and triac.	Mar	4
			<i>Digital electronics</i> : combinational circuits --- adder and subtractor, multiplexer, demultiplexer, encoder, decoder, sequential circuits --- flip-flop, D and J-K, registers and counters. <i>Instruments</i> : cathode-ray oscilloscope, digital multimeter, L and C measurements.	April	4

## Teaching Plan

**Department:**      **Physics**

**Session: 2019-20**

**Name of the teacher: Dr. Arabinda Chowdhury**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC5 Mathematical Physics II	Variational calculus in physics	Functionals. Basic ideas of functionals. Extremization of action as a basic principle in mechanics.	Jul	2
			Lagrangian fomulation. Euler's equations of motion for simple systems: harmonics oscillators, simple pendulum, spherical pendulum, coupled oscillators	Aug	4
			Cyclic coordinates. Symmetries and conservation laws. Legendre transformations and the Hamiltonian formulation of mechanics.	Sep	4
			Canonical equations of motion. Applications to simple systems.	Nov	3
	CC7 Digital Systems and Applications	Sequential Circuits	SR, D Flip Flop	Jul	2
			JK Flip-Flops. Clocked (Level and Edge Triggered) Flip-Flops. Preset and Clear operations. Race-around conditions in JK Flip-Flop. M/S JK Flip-Flop.	Aug	2
		Shift registers	Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in-Parallel-out Shift Registers (only up to 4 bits).	Aug	2
		Counters	Ring Counter. Asynchronous counters, Decade Counter. Synchronous Counter.	Sep	4
		Computer Organization	Input/Output Devices. Data storage (idea of RAM and ROM). Computer memory. Memory organization & addressing. Memory Interfacing. Memory Map.	Nov	4
	CC8 Mathematical Physics - III	Complex Analysis	Brief Revision of Complex Numbers. and their Graphical Representation. Euler's formula, Roots of Complex Numbers. Functions of Complex Variables. Analyticity and Cauchy-Riemann Conditions. Examples of analytic functions. Singular functions: poles and branch points, order of singularity, branch cuts. Integration of a function of a complex variable. Cauchy's Inequality. Cauchy's Integral	Jan	8



			formula. Simply and multiply connected region.		
		Complex Analysis	Laurent and Taylor's expansion. Residues and Residue Theorem. Application in solving Definite Integrals.	Feb	4
		Introduction to probability	Independent random variables: Sample space and Probability distribution functions. Binomial, Gaussian, and Poisson distribution with examples. Mean and variance.	Feb	4
		Special theory of Relativity	Michelson-Morley Experiment and its outcome. Postulates of Special Theory of Relativity. Lorentz Transformations. Simultaneity and order of events. Lorentz contraction. Time dilation. Relativistic transformation of velocity. Relativistic Dynamics. Variation of mass with velocity. Massless Particles. Mass-energy Equivalence. Transformation of Energy and Momentum.	March	8
		Relativity in Four Vector Notation	Four-vectors, Lorentz Transformation and Invariant interval, Space-time diagrams. Proper time and Proper velocity. Relativistic energy and momentum - Four momentum. Conservation of four momentum and applications to collisions. Minkowski Force.	April	8
Hons (1+1+1)	Part-III: Paper VIIA Unit-I - Statistical Mechanics	<i>Microstates and macrostates</i>	Classical description in terms of phase space and quantum description in terms of wave functions. Hypothesis of equal <i>a priori</i> probability for microstates of an isolated system in equilibrium. Interactions between two systems – thermal, mechanical and diffusive. Statistical definition of temperature, pressure, entropy and chemical potential. Partition function of a system in thermal equilibrium with a heat bath.	Jul	6
		<i>Classical statistical mechanics</i>	Maxwell-Boltzmann distribution law. Calculation of thermodynamic quantities for ideal monoatomic gases.	Aug	2
		<i>Motivations for quantum statistics</i>	Gibbs' paradox. Identical particle and symmetry requirement. Derivation of MB, FD and BE statistics as the most probable distributions (micro-canonical ensemble). Classical limit of quantum statistics.	Aug	6
		<i>Quantum</i>	Bose-Einstein statistics: Application to	Sep	8

		<i>statistical mechanics</i>	radiation – Planck’s law. Rayleigh Jeans and Wien laws as limiting cases, Stefan’s law. Fermi-Dirac statistics: Fermi distribution at zero and non-zero temperatures. Fermi energy and its expression in terms of particle density. Degenerate and non-degenerate Fermi gas. Electron specific heat of metals at low temperature. Saha equation for thermal ionization and its application to astrophysics.		
	Part-III: Paper VIIA Unit-I – Electro- magnetic Theory	<i>Generalization of Ampere’s Law</i>	Displacement Current, Maxwell’s Field Equations, Wave equation for electromagnetic (EM) field and its solution – plane wave and spherical wave solutions, density of field, Poynting vector Transverse nature of field, relation between <b>E</b> and <b>B</b> ; energy Poynting’s theorem, boundary conditions.	Nov	8
		<i>EM Waves in an isotropic dielectric</i>	Wave equation, reflection and refraction at plane boundary, reflection and transmission coefficients, Fresnel’s formula, change of phase on reflection, polarization on reflection and Brewster’s law, total internal reflection.	Jan	6
		<i>EM waves in conducting medium</i>	Wave equation in conducting medium, reflection and transmission at metallic surface – skin effect and skin depth, propagation of E-M waves between parallel and conducting plates – wave guides (rectangular only).	Feb	5
		<i>Dispersion</i>	Equation of motion of an electron in a radiation field : Lorentz theory of dispersion – normal and anomalous; Sellmeier’s and Cauchy’s formulae, absorptive and dispersive mode, half power frequency, band width.	Feb	3
		<i>Scattering</i>	Scattering of radiation by a bound charge, Rayleigh’s scattering (qualitative ideas), blue of the sky, absorption.	Mar	3
GE	GE3 Thermal Physics and Statistical Mechanics	Theory of Radiation	Blackbody radiation, Spectral distribution, Concept of Energy Density, Derivation of Planck's law,	Jul	2
			Deduction of Wien's distribution law, Rayleigh- Jeans Law, Stefan Boltzmann Law and Wien's displacement law from Planck's law.	Aug	2
		Statistical Mechanics	Phase space, Macrostate and Microstate. Ensemble - Ergodic hypothesis.	Aug	2

			PEAP, Entropy and Thermodynamic probability – Boltzmann hypothesis. Maxwell-Boltzmann law - distribution of velocity - Quantum statistics (qualitative discussion only) - Fermi-Dirac distribution law (statement only)	Sep	4
			electron gas as an example of Fermi gas - Bose-Einstein distribution law (statement only) - photon gas as an example of Bose gas- comparison of three statistics.	Nov	4
	GE4 Waves and Optics	Superposition of Two Collinear Harmonic oscillations	Linearity & Superposition Principle. (1) Oscillations having equal frequencies and (2) Oscillations having different frequencies (Beats).	Jan	1
		Superposition of Two Perpendicular Harmonic Oscillation	Graphical and Analytical Methods. Lissajous Figures with equal and unequal frequency and their uses.	Jan	2
		Wave Motion - General	Transverse waves on a string. Travelling and standing waves on a string. Normal Modes of a string. Group velocity, Phase velocity. Plane waves. Spherical waves, Wave intensity.	Feb	4
		Sound	Review of SHM, damped & forced vibrations - resonance. Fourier's Theorem - Application to saw tooth wave and square wave. Intensity and loudness of sound - Decibels - Intensity levels. Musical notes - musical scale. Acoustics of buildings: Reverberation and time of reverberation - Absorption coefficient - Sabine's formula – measurement of reverberation time - Acoustic aspects of halls and auditoria.	Mar	4
		Polarization	Transverse nature of light waves. Plane polarized light - production and analysis. Circular and elliptical polarization. Optical activity.	April	4

## Teaching Plan

**Department:**        **Physics**

**Session: 2020-21**

**Name of the teacher: Dr. Arabinda Chowdhury**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1: Mathematical Physics I	Calculus: Recapitulation	Limits, continuity, average and instantaneous quantities, differentiation. Plotting functions. Intuitive ideas of continuous, differentiable, etc. functions and plotting of curves.	Dec	4
		Calculus: Convergence of infinite series	Convergence of power series . Idea of interval of convergence . Different convergence tests of power series: D'alembert's ratio test, Cauchy's root test, Integral test. Alternating series test. Absolute and conditional convergence. Taylor series of one variable, Maclaurin series. Approximation errors.	Dec	4
		Calculus: First Order and Second Order Differential equations	First Order Differential Equations and Integrating Factor. Homogeneous Equations with constant coefficients. Wronskian and general solution. Statement of existence and Uniqueness Theorem for Initial Value Problems. Particular Integral. Calculus of functions of more than one variable: Partial derivatives, exact and inexact differentials. Integrating factor with simple illustration.	Jan	8
			Taylor series of two variable functions, Maxima, minima, saddle point evaluation of two variable functions using Taylor series. Constrained Maximization using Lagrange Multipliers.	Feb	4
		Matrices	Eigen-values and Eigenvectors (Degenerate and non-degenerate). Cayley-Hamilton Theorem. Diagonalization of Matrices.	Feb	4
			Solutions of Coupled Linear Ordinary homogeneous Differential Equations. Functions of a Matrix.	Mar	2
	CC2: Mechanics	Fundamentals of Dynamics	Review of Newtons Laws: Mechanistic view of the Universe. Concepts of Inertial frames, force and mass. Galilean transformations and Galilean invariance. Solution of the equations of motion (E.O.M.) in simple force fields in one, two and three dimensions using cartesian, cylindrical polar and spherical polar	Dec	8

			coordinate systems. (b) Dynamics of systems of particles: Difficulty of solving the E.O.M. for systems of particles. Newton's third Law. External and Internal forces. Momentum and Angular Momentum of a system. Torque acting on a system. Conservation of Linear and Angular Momentum. Centre of mass and its properties. Two-body problem. (c) Variable mass system: motion of rocket.		
		Gravitation and Central Force Motion	(a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates. (b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness. (c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Jan	8
		Non-Inertial Systems	Non-inertial frames and idea of fictitious forces. E.O.M with respect to a uniformly accelerating frame. E.O.M with respect to a uniformly rotating frame - Centrifugal and Coriolis forces. Laws of Physics in a laboratory on the surface of the earth.	Feb	8
	CC8: Mathematical Physics III	Complex Analysis	Brief Revision of Complex Numbers and their Graphical Representation. Euler's formula, Roots of Complex Numbers. Functions of Complex Variables. Analyticity and Cauchy-Riemann Conditions. Examples of analytic functions. Singular functions: poles and branch points, order of singularity, branch cuts. Integration of a function of a complex variable. Cauchy's Inequality. Cauchy's Integral formula. Simply and multiply connected region. Laurent and Taylor's expansion. Residues and Residue Theorem. Application in solving Definite Integrals. Only single valued integrals; simple poles on and off the real axis.	April	16
		Variational calculus	Functionals. Basic ideas of functionals. Extremization of action as a basic principle in mechanics. Lagrangian formulation. Euler's equations of motion for simple systems: harmonic oscillators, simple pendulum, spherical pendulum, coupled oscillators. Cyclic coordinates. Symmetries and conservation laws. Legendre transformations and the Hamiltonian formulation of mechanics. Canonical equations of motion. Applications to simple systems.	May	16
		Special theory of Relativity	(a) Michelson-Morley Experiment and its outcome. Postulates of Special Theory of Relativity. Lorentz Transformations.	June	8

			Simultaneity and order of events. Lorentz contraction. Time dilation. Relativistic transformation of velocity. Relativistic Dynamics. Variation of mass with velocity. Massless Particles. Mass-energy Equivalence. Transformation of Energy and Momentum.		
			(b) A short introduction to tensors Covariant and contravariant vectors. Contraction. Covariant, contravariant, and mixed tensors of rank-2, transformation properties. The metric tensor (flat space-time only). Raising and lowering of indices with metric tensors. (Consistent use of convention diag(1,-1,-1,-1).) (c) Relativity in Four Vector Notation: Four-vectors, Lorentz Transformation and Invariant interval, Space-time diagrams. Proper time and Proper velocity. Relativistic energy and momentum - Four momentum. Conservation of four momentum and applications to collisions. Minkowski Force.	July	16
SEC	SEC-B1: Arduino	Introduction to Arduino	Brief history of the Arduino; open-source electronics prototyping.	April	2
		Basic ideas	Basic ideas of Arduino, Familiarize the Arduino board,	April	2
			Setting up the arduino board. Installation of IDE in PC/ laptop for Arduino programming(Sketch)	May	2
		Arduino Programming	(a) Program structure: data types, variables and constants, operators, control statements, loops, functions, string.	May	4
			(b) Interfacing: serial communication, digital and analog input/output, getting input from sensors(e.g. temperature sensor, ultrasonic sensor etc)	June	4

## Teaching Plan

**Department:**        **Physics**

**Session: 2021-22**

**Name of the teacher: Dr. Arabinda Chowdhury**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1: Mathematical Physics I	Calculus: Recapitulation	Limits, continuity, average and instantaneous quantities, differentiation. Plotting functions. Intuitive ideas of continuous, differentiable, etc. functions and plotting of curves.	Aug	4
		Calculus: Convergence of infinite series	Convergence of power series . Idea of interval of convergence . Different convergence tests of power series: D'alembert's ratio test, Cauchy's root test, Integral test. Alternating series test. Absolute and conditional convergence. Taylor series of one variable, Maclaurin series. Approximation errors.	Sep	4
		Calculus: First Order and Second Order Differential equations	First Order Differential Equations and Integrating Factor. Homogeneous Equations with constant coefficients. Wronskian and general solution. Statement of existence and Uniqueness Theorem for Initial Value Problems.	Sep	4
			Particular Integral. Calculus of functions of more than one variable: Partial derivatives, exact and inexact differentials. Integrating factor with simple illustration.	Oct	4
			Taylor series of two variable functions, Maxima, minima, saddle point evaluation of two variable functions using Taylor series. Constrained Maximization using Lagrange Multipliers.	Nov	4
		Matrices	Eigen-values and Eigenvectors (Degenerate and non-degenerate). Cayley-Hamilton Theorem. Diagonalization of Matrices.	Nov	4
			Solutions of Coupled Linear Ordinary homogeneous Differential Equations. Functions of a Matrix.	Dec	2
	CC12: Statistical Mechanics	Classical Statistical Mechanics	(a) Macrostate & Microstate, Elementary Concept of Ensemble and Ergodic Hypothesis (statement only ). Phase Space. (b) Microcanonical ensemble, Postulate of Equal a-priori probabilities. Boltzmann hypothesis: Entropy and Thermodynamic Probability.	Aug	4

			(c) Canonical ensemble, Partition Function, Thermodynamic Functions of an Ideal Gas, Classical Entropy Expression, Gibbs Paradox. Equivalence of microcanonical and canonical ensemble.	Sep	8
			(d) Sackur Tetrode equation, Law of Equipartition of Energy (with proof) Applications to Specific Heat and its Limitations. Thermodynamic Functions of a Two-Energy Level System. Negative Temperature.	Sep	8
			(e) Grand canonical ensemble. Application of ideal gas using grand canonical ensemble. chemical potential.	Oct	4
		Systems of Identical particles	Collection of non-interacting identical particles. Classical approach and quantum approach: distinguishability and indistinguishability. Occupation number and MB distribution, emergence of Boltzmann factor. Composite system postulate and symmetry postulate of quantum mechanics (for a pair of particles only). Bosons and Fermions. Symmetric and Antisymmetric wave functions. state counting for bosons and fermions.	Nov	6
		Bose-Einstein Statistics	B-E distribution law. Thermodynamic functions of a strongly degenerate Bose Gas, Bose Einstein condensation and properties of liquid He IV (qualitative description only).	Nov	10
		Radiation : classical and quantum aspects	(a) Spectral Distribution of Black Body Radiation. Rayleigh-jeans law, UV catastrophe, Planck's Quantum Postulates. Planck's Law of Blackbody Radiation: Experimental Verification. Deduction of Rayleigh- Jeans Law, Stefan-Boltzmann Law, Wien's Displacement law from Planck's law. (b) Bose derivation of Planck's law. Radiation as a photon gas and Thermodynamic functions of photon gas. chemical potential of photon gas.	Dec	7
		Fermi-Dirac Statistics	Fermi-Dirac Distribution Law. Thermodynamic functions of strongly Degenerate Fermi Gas, Fermi Energy, Electron gas in a Metal, Specific Heat of Metals due to electrons.	Dec	9
	CC8: Mathematical Physics III	Complex Analysis	Brief Revision of Complex Numbers and their Graphical Representation. Euler's formula, Roots of Complex Numbers. Functions of Complex Variables. Analyticity and Cauchy-Riemann Conditions. Examples of analytic functions.	Feb	4
			Singular functions: poles and branch points, order of singularity, branch cuts. Integration of a function of a complex variable. Cauchy's Inequality. Cauchy's Integral formula. Simply and multiply connected region. Laurent and Taylor's expansion. Residues and Residue	Mar	9



			Theorem.		
			Application in solving Definite Integrals. Only single valued integrals; simple poles on and off the real axis.	April	4
		Special theory of Relativity	(a) Michelson-Morley Experiment and its outcome. Postulates of Special Theory of Relativity. Lorentz Transformations. Simultaneity and order of events. Lorentz contraction. Time dilation.	April	4
			Relativistic transformation of velocity. Relativistic Dynamics. Variation of mass with velocity. Massless Particles. Mass-energy Equivalence. Transformation of Energy and Momentum.	May	8
			(b) A short introduction to tensors Covariant and contravariant vectors. Contraction. Covariant, contravariant, and mixed tensors of rank-2, transformation properties. The metric tensor (flat space-time only). Raising and lowering of indices with metric tensors. (Consistent use of convention diag(1,-1,-1,-1).)	June	4
			(c) Relativity in Four Vector Notation: Four-vectors, Lorentz Transformation and Invariant interval, Space-time diagrams. Proper time and Proper velocity. Relativistic energy and momentum - Four momentum. Conservation of four momentum and applications to collisions. Minkowski Force.	July	10
	CC13: Digital Systems and Applications	Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction.	Feb	6
		Sequential Circuits	Introduction to Next state present state table, excitation table and truth table for Sequential circuits. SR, D, and JK Flip-Flops. Clocked (Level and Edge Triggered) Flip-Flops. Preset and Clear operations. Race condition in SR and Race-around conditions in JK Flip-Flop. M/S JK Flip-Flop, T type FF.	March	8
		Registers and Counters	(a) Shift registers: Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in-Parallel-out Shift Registers (only up to 4 bits). (b) Counters (4 bits): Asynchronous counters: ripple counter, Decade Counter. Synchronous Counter, Ring counter.	April	8
		Data Conversion	A/D (Ladder and weighted resistance) and D/A conversion circuit	May	3
		Computer Organization	Input/Output Devices. Data storage (idea of RAM and ROM, EPROM). Computer memory. Memory organization & addressing. Memory Interfacing. Memory	June	6

			Map.		
SEC	SEC-B1: Arduino	Introduction to Arduino	Brief history of the Arduino; open-source electronics prototyping.	Feb	2
		Basic ideas	Basic ideas of Arduino, Familiarize the Arduino board, Setting up the arduino board. Installation of IDE in PC/ laptop for Arduino programming(Sketch)	Mar	4
		Arduino Programming	(a) Program structure: data types, variables and constants, operators, control statements, loops, functions, string.	April	4
			(b) Interfacing: serial communication, digital and analog input/output, getting input from sensors(e.g. temperature sensor, ultrasonic sensor etc)	May	4
DSE	DSE B2: Communicati on Electronics	Digital Pulse Modulation	Need for digital transmission, Sampling and Shanon's criteria, Quantization and Encoding, Quantisation error,	Feb	3
			non-uniform quantisation, Impulse sampling, Natural sampling and flat top sampling, Pulse Code Modulation (PCM), Differential PCM	Mar	4
			Digital Carrier Modulation Techniques, Concept of Amplitude Shift Keying (ASK), Frequency Shift Keying (FSK).	April	4
			Idea of 8-PSK, QPSK, BPSK, use of Constellation diagram (idea only), Delta modulation.	May	2
			Concept of companding- A law and $\mu$ law. Line Coder: Unipolar and bipolar RZ & NRZ, Manchester format.	June	2

## Teaching Plan

**Department:**        **Physics**

**Session: 2022-23**

**Name of the teacher: Dr. Arabinda Chowdhury**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1: Mathematical Physics I	Calculus: Recapitulation	Limits, continuity, average and instantaneous quantities, differentiation. Plotting functions. Intuitive ideas of continuous, differentiable, etc. functions and plotting of curves.	Sep	4
		Calculus: Convergence of infinite series	Convergence of power series . Idea of interval of convergence . Different convergence tests of power series: D'alembert's ratio test, Cauchy's root test, Integral test. Alternating series test. Absolute and conditional convergence. Taylor series of one variable, Maclaurin series. Approximation errors.	Sep	4
		Calculus: First Order and Second Order Differential equations	First Order Differential Equations and Integrating Factor. Homogeneous Equations with constant coefficients. Wronskian and general solution. Statement of existence and Uniqueness Theorem for Initial Value Problems.	Oct	4
			Particular Integral. Calculus of functions of more than one variable: Partial derivatives, exact and inexact differentials. Integrating factor with simple illustration. Taylor series of two variable functions, Maxima, minima, saddle point evaluation of two variable functions using Taylor series. Constrained Maximization using Lagrange Multipliers.	Nov	8
		Matrices	Eigen-values and Eigenvectors (Degenerate and non-degenerate). Cayley-Hamilton Theorem. Diagonalization of Matrices. Solutions of Coupled Linear Ordinary homogeneous Differential Equations. Functions of a Matrix.	Dec	6
	CC12: Statistical Mechanics	Classical Statistical Mechanics	(a) Macrostate & Microstate, Elementary Concept of Ensemble and Ergodic Hypothesis (statement only ). Phase Space. (b) Microcanonical ensemble, Postulate of Equal a-priori probabilities. Boltzmann hypothesis: Entropy and Thermodynamic Probability.	Aug	4
			(c) Canonical ensemble, Partition Function, Thermodynamic Functions of an	Sep	8

			Ideal Gas, Classical Entropy Expression, Gibbs Paradox. Equivalence of microcanonical and canonical ensemble.		
			(d) Sackur Tetrode equation, Law of Equipartition of Energy (with proof) Applications to Specific Heat and its Limitations. Thermodynamic Functions of a Two-Energy Level System. Negative Temperature.	Sep	8
			(e) Grand canonical ensemble. Application of ideal gas using grand canonical ensemble. chemical potential.	Oct	4
		Systems of Identical particles	Collection of non-interacting identical particles. Classical approach and quantum approach: distinguishability and indistinguishability. Occupation number and MB distribution, emergence of Boltzmann factor. Composite system postulate and symmetry postulate of quantum mechanics (for a pair of particles only). Bosons and Fermions. Symmetric and Antisymmetric wave functions. state counting for bosons and fermions.	Nov	6
		Bose-Einstein Statistics	B-E distribution law. Thermodynamic functions of a strongly degenerate Bose Gas, Bose Einstein condensation and properties of liquid He IV (qualitative description only).	Nov	10
		Radiation : classical and quantum aspects	(a) Spectral Distribution of Black Body Radiation. Rayleigh-jeans law, UV catastrophe, Planck's Quantum Postulates. Planck's Law of Blackbody Radiation: Experimental Verification. Deduction of Rayleigh- Jeans Law, Stefan-Boltzmann Law, Wien's Displacement law from Planck's law. (b) Bose derivation of Planck's law. Radiation as a photon gas and Thermodynamic functions of photon gas. chemical potential of photon gas.	Dec	7
		Fermi-Dirac Statistics	Fermi-Dirac Distribution Law. Thermodynamic functions of strongly Degenerate Fermi Gas, Fermi Energy, Electron gas in a Metal, Specific Heat of Metals due to electrons.	Dec	9
	CC8: Mathematical Physics III	Complex Analysis	Brief Revision of Complex Numbers and their Graphical Representation. Euler's formula, Roots of Complex Numbers. Functions of Complex Variables. Analyticity and Cauchy-Riemann Conditions. Examples of analytic functions.	Mar	4
			Singular functions: poles and branch points, order of singularity, branch cuts. Integration of a function of a complex variable. Cauchy's Inequality. Cauchy's Integral formula. Simply and multiply connected region. Laurent and Taylor's expansion. Residues and Residue Theorem.	April	9

			Application in solving Definite Integrals. Only single valued integrals; simple poles on and off the real axis.	May	4
		Special theory of Relativity	(a) Michelson-Morley Experiment and its outcome. Postulates of Special Theory of Relativity. Lorentz Transformations. Simultaneity and order of events. Lorentz contraction. Time dilation.	May	4
			Relativistic transformation of velocity. Relativistic Dynamics. Variation of mass with velocity. Massless Particles. Mass-energy Equivalence. Transformation of Energy and Momentum.	June	8
			(b) A short introduction to tensors Covariant and contravariant vectors. Contraction. Covariant, contravariant, and mixed tensors of rank-2, transformation properties. The metric tensor (flat space-time only). Raising and lowering of indices with metric tensors. (Consistent use of convention diag(1,-1,-1,-1).)	July	4
			(c) Relativity in Four Vector Notation: Four-vectors, Lorentz Transformation and Invariant interval, Space-time diagrams. Proper time and Proper velocity. Relativistic energy and momentum - Four momentum. Conservation of four momentum and applications to collisions. Minkowski Force.	July	10
	CC13: Digital Systems and Applications	Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction.	Feb	4
		Sequential Circuits	Introduction to Next state present state table, excitation table and truth table for Sequential circuits. SR, D, and JK Flip-Flops. Clocked (Level and Edge Triggered) Flip-Flops. Preset and Clear operations. Race condition in SR and Race-around conditions in JK Flip-Flop. M/S JK Flip-Flop, T type FF.	March	8
		Registers and Counters	(a) Shift registers: Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in-Parallel-out Shift Registers (only up to 4 bits). (b) Counters (4 bits): Asynchronous counters: ripple counter, Decade Counter. Synchronous Counter, Ring counter.	April	8
		Data Conversion	A/D (Ladder and weighted resistance) and D/A conversion circuit	May	3
		Computer Organization	Input/Output Devices. Data storage (idea of RAM and ROM, EPROM). Computer memory. Memory organization & addressing. Memory Interfacing. Memory Map.	June	6

DSE	DSE-A1: Laser and Fiber Optics	Fiber optics	Optical fiber, coherent bundle, Numerical aperture. Attenuation of optical fibers. Ray paths , Ray paths in a homogeneous medium, in square law media.	Aug	4
			Pulse dispersion in parabolic index medium and in planar step index waveguide. Modes of a planar waveguide: TE and TM modes. Physical understanding of modes, Optical fibers: Guided modes of step-index and graded index fibers. Applications of optical fibers in Communication and Sensing.	Sep	8
		Holography	Principle of Holography. Recording and Reconstruction Method. Theory of Holography between two plane waves. Point source holograms.	Nov	4
		Introductory Nonlinear Optics	Origin of nonlinearity, susceptibility tensor, phase matching, second harmonic generation, Sum frequency generation, Difference frequency generation	Nov	4
			Sum and Difference Frequency generation, for second-order nonlinear optical medium. Nonlinear susceptibility of a classical anharmonic oscillator in case of non-centrosymmetric medium.	Dec	6
SEC	SEC-A1: Scientific Writing	Introduction to LATEX	The difference between WYSIWYG and WYSIWYM. Preparing a basic LATEX file. Compiling LATEX file.	Aug	2
		Document classes	Different type of document classes, e.g., article, report, book etc.	Aug	1
		Page Layout	Titles, Abstract, Chapters, Sections, subsections, paragraph, verbatim, References, Equation references, citation.	Sep	2
		List structures	Itemize, enumerate, description etc.	Sep	1
		Representation of mathematical equations	Inline math, Equations, Fractions, Matrices, trigonometric, logarithmic, exponential functions, line-surfacevolume integrals with and without limits, closed line integral, surface integrals, Scaling of Parentheses, brackets etc.	Sep	5
		Customization of fonts	Bold fonts, emphasise, mathbf, mathcal etc. Changing sizes Large, Larger, Huge, tiny etc.	Nov	1
		Writing tables	Creating tables with different alignments, placement of horizontal, vertical lines.	Nov	2
		Figures	Changing and placing the figures, alignments	Nov	1
	SEC-B1: Arduino	Introduction to Arduino	Brief history of the Arduino; open-source electronics prototyping.	Mar	2
		Basic ideas	Basic ideas of Arduino, Familiarize the Arduino board, Setting up the arduino board. Installation of IDE in PC/ laptop for Arduino programming(Sketch)	April	4
		Arduino Programming	(a) Program structure: data types, variables and constants, operators, control statements, loops, functions, string.	May	4
			(b) Interfacing: serial communication, digital and analog input/output, getting	June	4

			input from sensors(e.g. temperature sensor, ultrasonic sensor etc)		
--	--	--	--	--	--

# Teaching Plan

**Department: PHYSICS**

**Name of the teacher: TANUSHREE SAHU**

**Session: 2018-2019 (Odd Semester)  
CBCS (Sem 1), 1+1+1 (2<sup>nd</sup> year, 3<sup>rd</sup> year)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	PHS-A-CC-1-1-TH	Mathematical Physics I (Theory)	<b><u>Calculus:</u></b> Recapitulation: Limits, continuity, average and instantaneous quantities, differentiation. Plotting functions. Ideas of continuous, differentiable functions; plotting of curves. <b><u>Discussion of Problems</u></b>	July	4
			<b><u>Calculus (contd.):</u></b> Approximation: Taylor and binomial series; 1 <sup>st</sup> Order and 2 <sup>nd</sup> ODEs: 1 <sup>st</sup> ODEs and Integrating Factor; Homogeneous Equations with constant coefficients; Wronskian and general solution; Statement of existence and Uniqueness Theorem for Initial Value Problems. Particular Integral. <b><u>Discussion of Problems</u></b>	August	6
			<b><u>Calculus (contd.):</u></b> Calculus of functions of more than one variable: Partial derivatives, exact and inexact differentials. Integrating factor, with simple illustration; Constrained Maximization using Lagrange Multipliers. <b><u>Discussion of Problems</u></b>	September	6
			<b><u>Matrices:</u></b> Addition and Multiplication of Matrices. Null Matrices. Diagonal, Scalar and Unit Matrices. Transpose of a Matrix. Symmetric and Skew-Symmetric Matrices. Conjugate of a Matrix. Hermitian and Skew-Hermitian Matrices. Singular and Non-Singular matrices. Orthogonal and Unitary Matrices. Trace of a Matrix. Inner Product. <b><u>Discussion of Problems</u></b>	November	8
			<b><u>Matrices (contd.):</u></b> Eigen-values and Eigenvectors. Cayley-Hamilton Theorem. Diagonalization of Matrices. Solutions of Coupled Linear ODEs. Functions of a Matrix.	December	6



			<b>Discussion of Problems</b>		
<b>Hons</b>	<b>PAPER III</b>	<b>Waves &amp; Optics (Theory)</b>	<b><i>Interference of light waves</i></b> Young's experiment; spatial and temporal coherence; intensity distribution; Fresnel's biprism, interference in thin film; fringes of equal inclination and equal thickness; Newton's ring. <b>Discussion of Problems</b>	July	4
			<b><i>Interference of light waves (contd.):</i></b> Michelson's interferometer. Multiple beam interference – reflected and transmitted pattern. Fabry-Perot interferometer. <b>Discussion of Problems</b>	August	6
			<b><i>Diffraction of light waves</i></b> Fresnel and Fraunhofer class, Fresnel's half period zones; explanation of rectilinear propagation of light; zone plate. Fraunhofer diffraction due to a single slit, double slit and circular aperture (qualitative). Plane diffraction grating (transmission). Rayleigh criterion of resolution; <b>Discussion of Problems</b>	September	6
			<b><i>Diffraction of light waves (contd.):</i></b> Resolving power of prism, telescope, microscope and transmission grating. <b>Discussion of Problems</b>	November	4
			<b>Discussion of Problems on the lessons taught</b>	December	2
<b>Hons</b>	<b>PAPER VI</b>	<b>Nuclear and Particle Physics I &amp; II (Theory)</b>	<b><i>Bulk properties of nuclei</i></b> Nuclear mass, charge, size, binding energy, spin and magnetic moment. Isobars, isotopes and isotones; mass spectrometer (Bainbridge). <b><i>Nuclear structure</i></b> Nature of forces between nucleons, nuclear stability and binding, the liquid drop model and the Bethe-Weizsacker mass formula, application to stability considerations, extreme single particle shell model	July	10
			<b><i>Unstable nuclei</i></b> Alpha decay: alpha particle spectra – velocity and energy of alpha particles. Geiger-Nuttall law. $\beta$ decay: nature of $\beta$ ray spectra, the neutrino, energy levels and decay schemes, positron emission and electron capture, selection rules, $\beta$ absorption and range of $\beta$ particles, Kurie plot.	August	12
			<b><i>Unstable nuclei (contd.)</i></b> $\gamma$ decay: $\gamma$ ray spectra and nuclear energy levels, isomeric states. $\gamma$ absorption in matter – photoelectric process, Compton		

			scattering, pair production (qualitative). <b><u>Nuclear reactions</u></b> Conservation principles; Q-values and thresholds, nuclear reaction cross-sections, types of reactions and their characteristics. Bohr's postulate of compound nuclear reaction, Ghoshal's experiment. <b><u>Assignment on the covered topics</u></b>	September	12
			<b><u>Nuclear fission and fusion</u></b> Discovery and characteristics, explanation in terms of liquid drop model, fission products and energy release, spontaneous and induced fission, transuranic elements. Chain reaction and basic principle of nuclear reactors. Nuclear fusion: energetics in terms of liquid drop model. <b><u>Elementary particles</u></b> Basic interactions in nature; their relative strengths, examples of different types of interactions. Quantum numbers – mass, charge, spin, isotopic spin, intrinsic parity, hypercharge. Charge conjugation. Conservation laws. <b><u>Discussion of Problems</u></b>	November	10
			<b><u>Elementary particles (contd):</u></b> Classifications of elementary particles – hadrons and leptons, baryons and mesons, elementary ideas about quark structure of hadrons – octet and decuplet families. <b><u>Assignment on the covered topics</u></b>	December	4
			<b><u>Discussion on CU questions of previous years</u></b>	January	3

**Session: 2018-2019 (Even Semester)**  
**CBCS (Sem 2), 1+1+1 (2<sup>nd</sup> year, 3<sup>rd</sup> year)**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>Hons</b>	<b>PAPER III</b>	<b>Waves &amp; Optics (Theory)</b>	<b><u>Discussion on questions of test examination</u></b>	January	3
			<b><u>Discussion on CU questions of previous years</u></b>	February	3
<b>Hons</b>	<b>PAPER VI</b>	<b>Nuclear and Particle Physics I</b>	<b><u>Discussion on questions of test examination</u></b>	January	3
			<b><u>Discussion on CU questions of previous years</u></b>	February	2

		<b>&amp; II (Theory)</b>			
<b>CC</b>	<b>PHS- A-CC- 2-4-TH</b>	<b>Waves and Optics (Theory)</b>	<b><u>Wave optics</u></b> : Electromagnetic nature of light; Definition and properties of wave front. Huygens Principle; Temporal and Spatial Coherence.	March	4
			<b><u>Interference</u></b> : Division of amplitude and wavefront; YDSE; Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stokes' treatment. Interference in parallel and wedge shaped thin films. Fringes of equal inclination; Fringes of equal thickness; Newton's Rings	April	6
			<b><u>Interferometers</u></b> : Michelson's Interferometer; Fabry-Perot interferometer <b><u>Diffraction</u></b> : Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate; Fresnel's integral	May	4

**Session: 2019-2020 (Odd Semester)**  
**CBCS (Sem 1, Sem 3), 1+1+1 (3<sup>rd</sup> year)**

<b>Course type (CC/ GE/SEC/ AECC/D SE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
<b>CC</b>	<b>PHS- A-CC- 1-1- TH</b>	<b>Mathemat- ical Physics I (Theory)</b>	<b><u>Calculus</u></b> : Recapitulation: Limits, continuity, average and instantaneous quantities, differentiation. Plotting functions. Continuous, differentiable functions and plotting of curves. <b><u>Discussion of Problems</u></b>	July	4
			<b><u>Calculus (contd.)</u></b> : Approximation: Taylor and binomial series; 1 <sup>st</sup> Order and 2 <sup>nd</sup> ODEs: 1 <sup>st</sup> Order DEs and Integrating Factor; Homogeneous Equations with constant coefficients; Wronskian and general solution; Statement of existence and Uniqueness Theorem for Initial Value Problems. Particular Integral. <b><u>Discussion of Problems</u></b>	August	6
			<b><u>Calculus (contd.)</u></b> : Calculus of functions of more than one variable: Partial derivatives, exact and inexact differentials. Integrating factor, with simple illustration;	September	6

CC	PHS-A-CC-3-5-TH	Mathematical Physics II (Theory)	Constrained Maximization using Lagrange Multipliers. <b>Discussion of Problems</b>		
			<b>Matrices:</b> Addition and Multiplication of Matrices. Null Matrices. Diagonal, Scalar and Unit Matrices. Transpose of a Matrix. Symmetric and Skew-Symmetric Matrices. Conjugate of a Matrix. Hermitian and Skew-Hermitian Matrices. Singular and Non-Singular matrices. Orthogonal and Unitary Matrices. Trace of a Matrix. Inner Product. <b>Discussion of Problems</b>	November	8
			<b>Matrices (contd.):</b> Eigen-values and Eigenvectors. Cayley-Hamilton Theorem. Diagonalization of Matrices. Solutions of Coupled Linear ODEs. Functions of a Matrix. <b>Discussion of Problems</b>	December	6
			<b>Fourier Series:</b> Periodic functions; Orthogonality of sine and cosine functions; Dirichlet Conditions; Periodic functions in a series of sine and cosine functions; Complex representation of Fourier series. Expansion of functions with arbitrary period. Expansion of non-periodic functions over an interval. <b>Discussion of Problems</b>	July	4
			<b>Fourier Series (contd.):</b> Even and odd functions and their Fourier expansions. Applications. Summing of Infinite Series. Term-by-Term differentiation and integration of Fourier Series. Parseval Identity. <b>Discussion of Problems</b>	August	6
			<b>Frobenius Method and Special Functions:</b> Singular Points of 2 <sup>nd</sup> Order LDE; Power series solution of 2 <sup>nd</sup> order DE. Frobenius method and its applications to Legendre, Bessel, Hermite DE. <b>Discussion of Problems</b>	September	6
			<b>Frobenius Method and Special Functions (contd.):</b> Properties of Legendre Polynomials: Rodrigues Formula, Generating Function, Orthogonality; Simple recurrence relations; Expansion of function in a series of Legendre Polynomials. Multipole expansion in Electrostatics. <b>Discussion of Problems</b>	November	8
			<b>Frobenius Method and Special Functions (contd.):</b> Bessel Functions of the First Kind: Generating Function, simple recurrence		

			relations. Zeros of Bessel Functions ( $J_0(x)$ and $J_1(x)$ ) and Orthogonality; Airy's disc for Fraunhofer diffraction through circular aperture. <b>Discussion of Problems</b>	December	6
CC	PHS-A-CC-3-7-TH	Modern Physics (Theory)	<b><u>Nuclear Structure:</u></b> Size and structure; Electron not a nuclear constituent-argument with uncertainty principle; Nature of nuclear force	July	4
			<b><u>Nuclear Models:</u></b> Liquid Drop Model; SEMF and binding energy; Nuclear Shell Model, Magic numbers	August	6
			<b><u>Interaction with and within nucleus:</u></b> $\beta$ decay-energetics, spectrum, Neutrino hypothesis; $\gamma$ decay; Pair production	September	6
			<b><u>Interaction with and within nucleus (contd.):</u></b> Nuclear fission; Nuclear fusion	November	8
			<b><u>LASERS:</u></b> Einstein's coefficients; Metastable states; Spontaneous and stimulated emission; population inversion; 3- and 4-level Lasers	December	6
Hons	PAPE R VI	Nuclear and Particle Physics I & II (Theory)	<b><u>Bulk properties of nuclei</u></b> Nuclear mass, charge, size, binding energy, spin and magnetic moment. Isobars, isotopes and isotones; mass spectrometer (Bainbridge). <b><u>Nuclear structure</u></b> Nature of forces between nucleons, nuclear stability and nuclear binding, the liquid drop model and the Bethe-Weizsacker mass formula, application to stability considerations, extreme single particle shell model	July	10
			<b><u>Unstable nuclei</u></b> $\alpha$ decay: $\alpha$ particle spectra – velocity and energy of $\alpha$ particles. Geiger-Nuttal law. $\beta$ Decay: nature of $\beta$ ray spectra, the neutrino, energy levels and decay schemes, positron emission and electron capture, selection rules, $\beta$ absorption and range of beta particles, Kurie plot.	August	12
			<b><u>Unstable nuclei (contd.)</u></b> $\gamma$ decay: $\gamma$ ray spectra and nuclear energy levels, isomeric states. $\gamma$ absorption in matter – photoelectric process, Compton scattering, pair production. <b><u>Nuclear reactions</u></b> Conservation principles; Q-values and thresholds, nuclear reaction cross-sections, different types of reactions and their characteristics. Bohr's postulate of	September	12

			compound nuclear reaction, Ghoshal's experiment. <b>Assignment on the covered topics</b>		
			<b><i>Nuclear fission and fusion</i></b> Discovery and characteristics, explanation in terms of liquid drop model, fission products and energy release, spontaneous and induced fission, transuranic elements. Chain reaction and basic principle of nuclear reactors. Nuclear fusion: energetics in terms of liquid drop model. <b><i>Elementary particles</i></b> Basic interactions in nature; their relative strengths, examples of different types of interactions. Quantum numbers – mass, charge, spin, isotopic spin, intrinsic parity, hypercharge. Charge conjugation. Conservation laws. <b>Discussion of Problems</b>	November	10
			<b><i>Elementary particles (contd):</i></b> Classifications of elementary particles – hadrons and leptons, baryons and mesons, elementary ideas about quark structure of hadrons – octet and decuplet families. <b>Assignment on the covered topics</b>	December	8

**Session: 2019-2020 (Even Semester)**  
**CBCS (Sem 2, Sem 4), 1+1+1 (3<sup>rd</sup> year)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	PHS-A-CC-4-9-TH	Elements of Modern Physics (Theory)	<b><i>Unit 3:</i></b> (a) Size and structure of a nucleus and its relation with atomic weight; an electron not a nuclear constituent as a consequence of the uncertainty principle. (b) Nature of nuclear force, NZ graph. (c) Nuclear Models: Liquid Drop model. SEMF and binding energy. Nuclear Shell Model. Magic numbers.	February	6
			<b><i>Unit 4</i></b> (a) Radioactivity: stability of the nucleus; Law of radioactive decay; Mean life and half-life; Alpha decay; Beta decay- energy released,	March	12

			spectrum and Pauli's prediction of neutrino; Gamma ray emission, energy-momentum conservation: electron-positron pair creation by gamma photons in the vicinity of a nucleus.		
			<b><u>Unit 4 (contd.)</u></b> (b) Fission and fusion: mass deficit, relativity and generation of energy. Fission - nature of fragments and emission of neutrons. Nuclear reactor: slow neutrons interacting with Uranium 235; Fusion and thermonuclear reactions driving stellar energy (c) Lasers: Einstein's A and B coefficients. Metastable states. Spontaneous and Stimulated emissions. Optical Pumping and Population Inversion. Three-Level and Four-Level Lasers. Ruby Laser and He-Ne Laser. Basic lasing.	April	12
CC	PHS-A-CC-2-4-TH	Waves and Optics (Theory)	<b><u>Wave optics:</u></b> Electromagnetic nature of light; Definition and properties of wave front. Huygens Principle; Temporal and Spatial Coherence.	March	4
			<b><u>Interference:</u></b> Division of amplitude and wavefront; YDSE; Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stokes' treatment. Interference in parallel and wedge shaped thin films. Fringes of equal inclination; Fringes of equal thickness; Newton's Rings	April	6
			<b><u>Interferometers:</u></b> Michelson's Interferometer; Fabry-Perot interferometer <b><u>Diffraction:</u></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate; Fresnel's integral	May	4

**Session: 2020-2021 (Odd Semester)**

Course type (CC/GE/SEC/AECC/D)	Paper	Unit name	Sub-unit name	Month	No. of classes

SE)					
CC	PHS-A-CC-3-5-TH	Mathematical Physics II (Theory)	<b><u>Fourier Series:</u></b> Periodic functions; Orthogonality of sine and cosine functions; Dirichlet Conditions; Expansion of periodic functions in a series of sine and cosine functions; Complex representation. Expansion of functions with arbitrary period. Expansion of non-periodic functions over an interval.	July	4
			<b><u>Fourier Series (contd.):</u></b> Even and odd functions and their Fourier expansions. Applications. Summing of Infinite Series. Term-by-Term differentiation and integration of Fourier Series. Parseval Identity. <b><u>Discussion of Problems</u></b>	August	6
			<b><u>Frobenius Method and Special Functions:</u></b> Singular Points of 2 <sup>nd</sup> Order Linear Differential Equations; Power series solution of 2 <sup>nd</sup> order differential equation. Frobenius method and its applications to Legendre, Bessel, Hermite Differential Equations. <b><u>Discussion of Problems</u></b>	September	6
			<b><u>Frobenius Method and Special Functions (contd.):</u></b> Legendre Polynomials: Rodrigues Formula, Generating Function, Orthogonality; Recurrence relations; Expansion of function in a series of Legendre Polynomials. Multipole expansion in Electrostatics. <b><u>Discussion of Problems</u></b>	November	8
			<b><u>Frobenius Method and Special Functions (contd.):</u></b> Bessel Functions of the First Kind: Generating Function, simple recurrence relations. Zeros of Bessel Functions ( $J_0(x)$ and $J_1(x)$ ) and Orthogonality; Airy's disc for Fraunhofer diffraction through circular aperture. <b><u>Discussion of Problems</u></b>	December	6
			<b><u>Nuclear Structure:</u></b> Size and structure; Electron not a nuclear constituent-argument with the help of uncertainty principle;	July	4



CC	PHS-A-CC-3-7-TH	Modern Physics (Theory)	Nature of nuclear force		
			<b><u>Nuclear Models:</u></b> Liquid Drop Model; SEMF and binding energy; Nuclear Shell Model, Magic numbers	August	6
			<b><u>Interaction with and within nucleus:</u></b> $\beta$ Decay; -energetics, spectrum, Neutrino hypothesis; $\gamma$ decay; Pair production	September	6
			<b><u>Interaction with and within nucleus (contd.):</u></b> Nuclear fission; Nuclear fusion	November	8
			<b><u>LASERS:</u></b> Einstein's coefficients; Metastable states; Spontaneous and stimulated emission; population inversion; 3- and 4-level Lasers	December	6
DSE	PHS-A-DSE-B1(b)-TH	Nuclear and Particle Physics (Theory)	<b><u>Introduction (Recapitulation):</u></b> General properties of nuclei; Nuclear models; Beta Decay; Gamma decay	July	10
			<b><u>Nuclear Reactions:</u></b> Types of Reactions; Conservation Laws; Reaction kinematics; Q-value; reaction rate; reaction cross section		
			<b><u>Nuclear Reactions (contd.):</u></b> Compound and direct reaction; resonance reaction; Coulomb scattering (Rutherford scattering). <b><u>Interaction of Nuclear Radiation with matter:</u></b> Bethe-Block formula; energy loss of electrons; Cerenkov radiation; photoelectric effect	August	12
			<b><u>Interaction of Nuclear Radiation with matter (contd):</u></b> Compton scattering; pair production; neutron's interaction with matter <b><u>Particle Physics:</u></b> Fundamental particles and interactions. <b><u>Assignment on the covered topics</u></b>	September	12
			<b><u>Particle Physics (contd):</u></b> Gellmann-Nishijima formula; Quark structure; Symmetries and Conservation Laws; <b><u>Discussion of Problems</u></b>	November	10
			<b><u>Particle Physics (contd):</u></b> Quark model; color; gluons		

			<b>Assignment on the covered topics</b>	December	8
--	--	--	---	----------	---

**Session: 2020-2021 (Even Semester)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	PHS-G-CC-4-4-TH	Waves and Optics (Theory)	<u><b>Acoustics:</b></u> Review of SHM <u><b>Introduction to wave Optics:</b></u> Definition and Properties of wave front. Huygens Principle, Electromagnetic nature of light.	February	6
			<u><b>Superposition of vibrations:</b></u> Superposition of Two Collinear Harmonic oscillations having equal frequencies and different frequencies (Beats). <u><b>Acoustics (contd):</b></u> damped & forced vibrations: amplitude and velocity resonance; Fourier's Theorem and its application for Saw tooth wave, triangular wave, square wave; Intensity and loudness of sound; Intensity levels, Decibels. <u><b>Interference:</b></u> Superposition of two waves with phase difference, distribution of energy, visibility of fringes. Division of amplitude and division of wavefront. YDSE.	March	12
			<u><b>Superposition of vibrations (contd):</b></u> Superposition of Two Perpendicular Harmonic Oscillation; Graphical and Analytical Methods, Lissajous Figures with equal and unequal frequency <u><b>Interference (contd):</b></u> Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stoke's treatment; Interference in parallel and wedge- shaped thin films; Fringes of equal inclination; Fringes of equal thickness; Newton's Rings; Michelson's Interferometer	April	12

			<p><b><i>Vibrations in String:</i></b> Wave equation in stretched string; Boundary conditions for plucked and struck strings; Expression of amplitude for both the cases; Young's law, Ideal of harmonics. Musical scales and notes.</p> <p><b><i>Diffraction:</i></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate.</p> <p><b><i>Polarization:</i></b> Transverse nature of light waves; Plane polarized light, production and analysis; Circular and elliptical polarization; Optical activity.</p>	May	8
CC	PHS-A-CC-2-4-TH	Waves and Optics (Theory)	<p><b><i>Wave optics:</i></b> Electromagnetic nature of light; Definition and properties of wave front. Huygens Principle; Temporal and Spatial Coherence.</p>	March	4
			<p><b><i>Interference:</i></b> Division of amplitude and wavefront; YDSE; Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stokes' treatment. Interference in parallel and wedge shaped thin films. Fringes of equal inclination; Fringes of equal thickness; Newton's Rings</p>	April	6
			<p><b><i>Interferometers:</i></b> Michelson's Interferometer; Fabry-Perot interferometer</p> <p><b><i>Diffraction:</i></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate; Fresnel's integral</p>	May	4

### Session: 2021-2022 (Odd Semester)

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
			<p><b><i>Nuclear Structure:</i></b> Size and structure; Electron not a nuclear constituent-argument with uncertainty principle; Nature of nuclear force</p>	July	4

CC	PHS-A-CC-3-7-TH	Modern Physics (Theory)	<b><u>Nuclear Models:</u></b> Liquid Drop Model; SEMF and binding energy; Nuclear Shell Model, Magic numbers	August	6
			<b><u>Interaction with and within nucleus:</u></b> Beta decay-energetics, spectrum, Neutrino hypothesis; Gamma decay; Pair production	September	6
			<b><u>Interaction with and within nucleus (contd.):</u></b> Nuclear fission; Nuclear fusion	November	8
			<b><u>LASERS:</u></b> Einstein's coefficients; Metastable states; Spontaneous and stimulated emission; population inversion; 3- and 4-level Lasers	December	6
DSE	PHS-A-DSE-B1(b)-TH	Nuclear and Particle Physics (Theory)	<b><u>Introduction (Recapitulation):</u></b> General properties of nuclei; Nuclear models; $\beta$ Decay; $\gamma$ decay <b><u>Nuclear Reactions:</u></b> Types of Reactions; Conservation Laws; Reaction kinematics; Q-value; reaction rate and cross section	July	10
			<b><u>Nuclear Reactions (contd.):</u></b> Compound and direct reaction; resonance reaction; Coulomb scattering (Rutherford scattering). <b><u>Interaction of Nuclear Radiation with matter:</u></b> Bethe-Block formula; energy loss of electrons; Cerenkov radiation; photoelectric effect	August	12
			<b><u>Interaction of Nuclear Radiation with matter (contd):</u></b> Compton scattering; pair production; neutron's interaction with matter <b><u>Particle Physics:</u></b> Fundamental particles and interactions. <b><u>Assignment on the covered topics</u></b>	September	12
			<b><u>Particle Physics (contd):</u></b> Gellmann-Nishijima formula; Quark structure; Symmetries and Conservation Laws <b><u>Discussion of Problems</u></b>	November	10
			<b><u>Particle Physics (contd):</u></b> quark model; color; gluons <b><u>Assignment on the covered topics</u></b>	December	8

**Session: 2021-2022 (Even Semester)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
<b>DSE</b>	<b>PHS-A-DSE-B2(a)-TH</b>	<b>Communication Electronics (Theory)</b>	<b><u>Analog Modulation:</u></b> Amplitude Modulation; mathematical analysis for modulation index	February	2
			<b><u>Analog Modulation (contd):</u></b> Frequency spectrum and power in AM; Generation of AM (Emitter Modulation, Diode/square law modulator); Concept of Single side band generation and detection, concept of vestigial side band. <b><u>Assignment on the covered topics</u></b>	March	4
			<b><u>Analog Modulation (contd):</u></b> Amplitude Demodulation (diode detector); Balanced modulator for DSB; Frequency Modulation (FM) and Phase Modulation (PM), modulation index and frequency spectrum, Transistor/FET reactance modulator, equivalence between FM and PM <b><u>Assignment on the covered topics</u></b>	April	4
			<b><u>Analog Modulation (contd):</u></b> Generation of FM using VCO, FM detector : slope detector, Balanced slope detector; Phase discriminator and ratio detector; IF and Super heterodyne receiver	May	2
<b>GE</b>	<b>PHS-G-CC-4-4-TH</b>	<b>Waves and Optics (Theory)</b>	<b><u>Acoustics:</u></b> Review of SHM <b><u>Introduction to wave Optics:</u></b> Wave front. Huygens Principle, Electromagnetic nature of light.	February	6
			<b><u>Superposition of vibrations:</u></b> Superposition of Two Collinear Harmonic oscillations having equal frequencies and different frequencies (Beats). <b><u>Acoustics (contd):</u></b> damped & forced vibrations: amplitude and velocity resonance; Fourier's Theorem and its application for Saw tooth wave, triangular wave, square wave; Intensity and loudness of sound; Intensity levels, Decibels.	March	12

			<b><i>Interference:</i></b> Superposition of two waves with phase difference, distribution of energy, visibility of fringes. Division of amplitude and division of wavefront. YDSE.		
			<b><i>Superposition of vibrations (contd):</i></b> Superposition of Two Perpendicular Harmonic Oscillation; Graphical and Analytical Methods, Lissajous Figures with equal and unequal frequency <b><i>Interference (contd):</i></b> Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stoke's treatment; Interference in parallel and wedge- shaped thin films; Fringes of equal inclination; Fringes of equal thickness; Newton's Rings; Michelson's Interferometer	April	12
			<b><i>Vibrations in String:</i></b> Wave equation in stretched string; Boundary conditions for plucked and struck strings; Expression of amplitude for both the cases; Young's law, Ideal of harmonics. Musical scales and notes. <b><i>Diffraction:</i></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate. <b><i>Polarization:</i></b> Transverse nature of light waves; Plane polarized light, production and analysis; Circular and elliptical polarization; Optical activity.	May	8
CC	PHS-A-CC-2-4-TH	Waves and Optics (Theory)	<b><i>Wave optics:</i></b> Electromagnetic nature of light; Definition and properties of wave front. Huygens Principle; Temporal and Spatial Coherence.	March	4
			<b><i>Interference:</i></b> Division of amplitude and wavefront; YDSE; Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stokes' treatment. Interference in parallel and wedge shaped thin films. Fringes of equal inclination; Fringes of equal thickness; Newton's Rings	April	6

			<p><b><u>Interferometers:</u></b> Michelson's Interferometer; Fabry-Perot interferometer</p> <p><b><u>Diffraction:</u></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate; Fresnel's integral</p>	May	4
--	--	--	---	-----	---

**Session: 2022-2023 (Odd Semester)**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	PHS-A-CC-3-7-TH	Modern Physics (Theory)	<p><b><u>Nuclear Structure:</u></b> Size and structure; Electron not a nuclear constituent-argument with uncertainty principle; Nature of nuclear force</p>	July	4
			<p><b><u>Nuclear Models:</u></b> Liquid Drop Model; SEMF and binding energy: Nuclear Shell Model, Magic numbers</p>	August	6
			<p><b><u>Interaction with and within nucleus:</u></b> Beta decay-energetics, spectrum, Neutrino hypothesis; Gamma decay; Pair production</p>	September	6
			<p><b><u>Interaction with and within nucleus:</u></b> Nuclear fission; Nuclear fusion</p>	November	8
			<p><b><u>LASERS:</u></b> Einstein's coefficients; Metastable states; Spontaneous and stimulated emission; population inversion; 3- and 4-level Lasers</p>	December	6
DSE		Nuclear	<p><b><u>Introduction (Recapitulation):</u></b> General properties of nuclei; Nuclear models; <math>\beta</math> Decay; <math>\gamma</math> decay</p> <p><b><u>Nuclear Reactions:</u></b> Types of Reactions; Conservation Laws; Reaction kinematics; Q-value; reaction rate and cross section</p>	July	10
			<p><b><u>Nuclear Reactions (contd.):</u></b> Compound and direct reaction; resonance reaction; Coulomb scattering (Rutherford scattering).</p> <p><b><u>Interaction of Nuclear Radiation</u></b></p>	August	12

	PHS-A-DSE-B1(b)-TH	and Particle Physics (Theory)	<b><i>with matter:</i></b> Bethe-Block formula; energy loss of electrons; Cerenkov radiation; photoelectric effect		
			<b><u>Interaction of Nuclear Radiation with matter (contd):</u></b> Compton scattering; pair production; neutron's interaction with matter <b><u>Particle Physics:</u></b> Fundamental particles and interactions. <b><u>Assignment on the covered topics</u></b>	September	12
			<b><u>Particle Physics (contd):</u></b> Gellmann-Nishijima formula; Quark structure; Symmetries and Conservation Laws; <b><u>Discussion of Problems</u></b>	November	10
			<b><u>Particle Physics (contd):</u></b> quark model; color; gluons <b><u>Assignment on the covered topics</u></b>	December	8

**.Session: 2022-2023 (Even Semester)**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
DSE	PHS-A-DSE-B2(a)-TH	Communication Electronics (Theory)	<b><u>Analog Modulation:</u></b> Amplitude Modulation; mathematical analysis for modulation index	February	2
			<b><u>Analog Modulation (contd):</u></b> Frequency spectrum and power in AM; Generation of AM (Emitter Modulation, Diode/square law modulator); Concept of Single side band generation and detection, concept of vestigial side band. <b><u>Assignment on the covered topics</u></b>	March	4
			<b><u>Analog Modulation (contd):</u></b> Amplitude Demodulation (diode detector); Balanced modulator for DSB; Frequency Modulation (FM) and Phase Modulation (PM), modulation index and frequency spectrum, Transistor/FET reactance modulator, equivalence between FM and PM <b><u>Assignment on the covered topics</u></b>	April	4
			<b><u>Analog Modulation (contd):</u></b> Generation of FM using VCO, FM		



			detector : slope detector, Balanced slope detector; Phase discriminator and ratio detector; IF and Super heterodyne receiver	May	2
GE	PHS-G-CC-4-4-TH	Waves and Optics (Theory)	<u><b>Acoustics:</b></u> Review of SHM <u><b>Introduction to wave Optics:</b></u> Definition and Properties of wave front. Huygens Principle, Electromagnetic nature of light.	February	6
			<u><b>Superposition of vibrations:</b></u> Superposition of Two Collinear Harmonic oscillations having equal frequencies and different frequencies (Beats). <u><b>Acoustics (contd):</b></u> damped & forced vibrations: amplitude and velocity resonance; Fourier's Theorem and its application for Saw tooth wave, triangular wave, square wave; Intensity and loudness of sound; Intensity levels, Decibels. <u><b>Interference:</b></u> Superposition of two waves with phase difference, distribution of energy, visibility of fringes. Division of amplitude and division of wavefront. YDSE.	March	12
			<u><b>Superposition of vibrations (contd):</b></u> Superposition of Two Perpendicular Harmonic Oscillation; Graphical and Analytical Methods, Lissajous Figures with equal and unequal frequency <u><b>Interference (contd):</b></u> Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stoke's treatment; Interference in parallel and wedge- shaped thin films; Fringes of equal inclination; Fringes of equal thickness; Newton's Rings; Michelson's Interferometer	April	12
			<u><b>Vibrations in String:</b></u> Wave equation in stretched string; Boundary conditions for plucked and struck strings; Expression of amplitude for both the cases; Young's law, Ideal of harmonics. Musical scales and notes. <u><b>Diffraction:</b></u> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate. <u><b>Polarization:</b></u> Transverse nature of light waves; Plane polarized light,	May	8

			production and analysis; Circular and elliptical polarization; Optical activity.		
CC	PHS-A-CC-2-4-TH	Waves and Optics (Theory)	<b><i>Wave optics:</i></b> Electromagnetic nature of light; wave front. Huygens Principle; Temporal and Spatial Coherence.	March	4
			<b><i>Interference:</i></b> Division of amplitude and wavefront; YDSE; Lloyd's Mirror; Fresnel's Biprism; Phase change on reflection: Stokes' treatment. Interference in parallel and wedge shaped thin films. Fringes of equal inclination; Fringes of equal thickness; Newton's Rings	April	6
			<b><i>Interferometers:</i></b> Michelson's Interferometer; Fabry-Perot interferometer <b><i>Diffraction:</i></b> Fraunhofer diffraction Single slit; Double Slit; Multiple slits; Diffraction grating. Fresnel Diffraction: Half-period zones. Zone plate; Fresnel's integral	May	4

## Teaching Plan

**Department: PHYSICS**

**Session:2020-21(Odd SEM)**

**Name of the teacher: SWATI MIDDA**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC (SEM 1)	CC2	Mechanics	<b>1. Fundamentals of Dynamics:</b>	August & September	4
			(a) Review of Newton's laws		
			(b) Dynamics of system of particles		6
			(c) Variable mass system: Rocket motion		3
			Problems & Discussion	September & October	2
			<b>2. Work &amp; Energy:</b>		
			(a) Work-energy theorem & relevant problems		2
			(b) 1D motion & PE curve; Stable & unstable equilibrium		5
			(c) Energy of system of particles		2
			Problems & Question paper discussion		2
			<b>3. Rotational Dynamics:</b>	November & December	
			(a) The rigid body; constraints, DOF		3
			(b) Moment of Inertia, relevant problems		5
			(c) Equation of motion for rotation about fixed axis		3
			(d) Principal axes transformation;		5
			(e) Euler's equation & problems		2
			Revision & C.U.		3

[illegible]

		Total internal reflection, Evanescent waves		
		<b>4. Polarization</b> (a) Description of Linear, Circular and Elliptical Polarization. Propagation of E.M. Waves in birefringent medium  <b>5. Polarization in uniaxial crystals</b> (a) Uniaxial and Biaxial Crystals (b) Light Propagation in Uniaxial Crystal (c) Double Refraction. Polarization by Double Refraction. Nicol Prism, Ordinary & extraordinary refractive indices. (d) Phase Retardation Plates: Quarter-Wave and Half-Wave Plates. (e) Production & analysis of polarized light (f) Babinet Compensator and its Uses Problems & C.U. question paper discussion  <b>6. Rotatory polarization</b> (a) Optical Rotation. Biot's Laws for Rotatory Polarization. (b) Fresnel's Theory of optical rotation. Calculation of angle of rotation. (c) Experimental verification of Fresnel's theory. Specific rotation. (d) Laurent's half-shade and biquartz	September	2
				3
			September & October	1
				1
				3
				3
				3
				1
				3
			November	2
				2
				2
				1

			polarimeters. Problems & discussion		1
--	--	--	--	--	---

## Teaching Plan

**Department: PHYSICS**

**Session:2020-21(EVEN SEM)**

**Name of the teacher: SWATI MIDDA**

Course type (CC/ GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC (SEM 2)	CC3	<b>Electricity and Magnetism</b>	<b>1. The Magnetostatic Field</b>	January & February	3
			(a) Biot-Savart's law, Application of Biot-Savart's law to determine the magnetic field of a straight conductor, circular coil.		2
			(b) Force on a moving point charge due to a magnetic field: Lorentz force law. Force between two straight current carrying wires.		2
			(c) Divergence of the magnetic field and its solenoidal nature. Magnetic vector potential, calculation for simple cases.		3
			(d) Curl of the magnetic field. Ampere's circuital law & its application Problems & Question paper discussion		2
			<b>2. Magnetic properties of</b>		

			<p><b>matter</b>  (a) Potential and field due to a magnetic dipole. Magnetic dipole moment. Force and torque on a magnetic dipole in a uniform magnetic field.  (b) Magnetization, Bound currents. The magnetic intensity <math>H</math>. Relation between <math>B</math>, <math>H</math> and <math>M</math>. Linear media. Magnetic Susceptibility and Permeability.  (c) Boundary conditions for dia, para &amp; ferro-magnetic materials. B-H curve and hysteresis.</p>	February & March	3
			<p><b>3. Electro-magnetic induction</b>  (a) Ohms law and definition of E.M.F. Faraday's laws of EM induction,  (b) Lenz's law. Self-Inductance and Mutual Inductance. Reciprocity Theorem.  (c) Introduction to Maxwell's Equations. Charge conservation. Displacement current Equation of Continuity Problems &amp; Discussion</p>	March & April	3
					2
					1
					3
					2

			<b>4. Electrical circuits</b> AC Circuits: (a) Kirchhoff's laws for AC circuits. (b) Complex Reactance and Impedance. (c) Series LCR Circuit; Resonance, Power Dissipation and Quality Factor, Band Width. Parallel LCR Circuit Problems & Question paper discussion	April-May	2 2 1 5 3
CC (SEM 6)	CC13	Digital Systems and Applications	<b>1. Integrated Circuits</b> (a) Principle of Design of monolithic Chip (b) Advantages and drawbacks of ICs. Scale of integration: SSI, MSI, LSI <b>2. Number System</b> (a) Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. (b) Signed and unsigned number representation of binary system. Representation of negative number. (c) 1's Complement and 2's Complement method of	January  January-February	2 2 3 2 1



			<p>subtraction. Problems</p> <p><b>3. Digital Circuits</b></p> <p>(a) Difference between Analog and Digital Circuits. Introduction of switching algebra, Huntington's postulates. Combinational logic, Truth table.</p> <p>(b) Introduction of basic logic functions AND, OR and NOT. Implementation of OR, AND, NOT Gates (realization using Diodes and Transistor).</p> <p>(c) De Morgan's Theorems. NAND and NOR Gates as Universal Gates. XOR and XNOR Gates and application as Parity Checkers. Circuit representation of gates (both Usual and IEEE symbols).</p> <p>(d) Introduction to different logics like DTL, TTL, MOS and CMOS. MOS and CMOS inverter circuit. NAND/NOR circuit using MOS logic.</p> <p>(e) Product term and sum term in logical</p>	February - March	<p>1</p> <p>3</p> <p>3</p> <p>4</p> <p>5</p> <p>4</p>
--	--	--	---	------------------	---

			expression. Sum of Product and Product of Sum and mixed expression. Minterm and Maxterm in the expressions. (f)Conversion between truth table and logical expression. Simplification of logical expression using Karnaugh Map.		3

## Teaching Plan (Even Semester-CBCS)

**Department: Physics**

**Session: 2021--2022**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC13	Integrated Circuits	Principle of Design of monolithic Chip. Advantages and drawbacks of ICs. Scale of integration: SSI, MSI, LSI and VLSI	Jan	5
		Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields.	Feb	7

			Gauss divergence theorem and Stoke's theorem of vectors (Statement only) and their significances.		
		Digital Circuits	<p>(a) Difference between Analog and Digital Circuits.</p> <p>Introduction of switching algebra, Huntington's postulates.</p> <p>Combinational logic, Truth table.</p> <p>Introduction of basic logic functions AND, OR and NOT.</p> <p>Implementation of OR, AND, NOT Gates (realization using Diodes and Transistor). De Morgan's Theorems. NAND and NOR Gates as Universal Gates.</p> <p>XOR and XNOR Gates and application as Parity Checkers.</p> <p>Circuit representation of gates (both Usual and IEEE symbols).</p> <p>Introduction to different logics like DTL, TTL, MOS and CMOS.</p> <p>MOS and CMOS inverter circuit.</p> <p>NAND/NOR circuit using MOS logic.</p>	March	9

			Product term and sum term in logical expression. Sum of Product and Product of Sum and mixed expression. Min term and Max term in the expressions. Conversion between truth table and logical expression. Simplification of logical expression using Karnaugh Map.	April	7
		Implementation of different circuits	Half and Full Adders. Subtractors, 4-bit binary adder/Subtractor. Combinational logic circuits using PAL/PLA, use of IC 7483 as adder and subtractor.	May	6
		Data processing circuits	Basic idea of Multiplexers, Demultiplexers, Decoders, Encoders.	May	5
CC	CC14	Crystal Structure	Solids: Amorphous and Crystalline Materials. Lattice Translation Vectors. Lattice with a Basis; Central and Non-Central Elements. Unit Cell. Miller Indices. Reciprocal Lattice. Types of Lattices. Brillouin Zones.	Jan	12

			Diffraction of X-rays by Crystals. Laue and Bragg's Law and their equivalence. Atomic and Geometrical Structure Factor. Basic idea of crystal indexing: examples with SC, BCC, FCC structure.		
		Elementary Lattice Dynamics	Lattice Vibrations and Phonons: Linear Monatomic and Diatomic Chains. Acoustical and Optical Phonons. Qualitative Description of the Phonon Spectrum in Solids. Dulong and Petit's Law, Einstein and Debye theories of specific heat of solids, $T^3$ law.	Feb	10
		Magnetic Properties of Matter	Dia, Para, Ferri and Ferromagnetic Materials. Classical Langevin Theory of Dia and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism (using partition function). Curie's law, Weiss's Theory of Ferromagnetism and Ferromagnetic	March	8

			Domains. Discussion of B-H Curve. Hysteresis and Energy Loss.		
		Dielectric Properties of Materials	Polarization. Local Electric Field at an Atom. Depolarization Field. Electric Susceptibility. Polarizability. Clausius Mosotti Equation. Classical Theory of Electric Polarizability. Normal and Anomalous Dispersion. Cauchy and Sellmeir relations. Langevin-Debye equation. Complex Dielectric Constant.	April	8
		Drude's theory	Free electron gas in metals, effective mass, drift current, mobility and conductivity, Hall effect in metals. Thermal conductivity. Lorentz number, limitation of Drude's theory.	March	4
		Elementary band theory	Kronig Penny model. Band Gap. effective mass and effective mass tensor. Conductor, Semiconductor (P and N type) and insulator. Conductivity of Semiconductor,	April	12

			mobility, Hall Effect. Measurement of conductivity (4 probe method) & Hall coefficient.		
		Superconductivity	Experimental Results. Critical Temperature. Critical magnetic field. Meissner effect. Type I and type II Superconductors, London's Equation and Penetration Depth. Isotope effect.	May	6
DSE	DSE A2	Optical Properties	Coulomb interaction in nanostructures. Concept of dielectric constant for nanostructures and charging of nanostructure. Quasi-particles and excitons. Excitons in direct and indirect band gap semiconductor nanocrystals. Quantitative treatment of quasi-particles and excitons, charging effects. Radiative processes: General formalization, absorption, emission and luminescence. Optical properties of heterostructures and nanostructures.	Jan-May	15



## Teaching Plan (Odd Semester-CBCS)

**Department: Physics**

**Session: 2021--2022**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	GE1	Mathematical Methods	Vector Algebra: Addition of vectors and multiplication by a scalar. Scalar and vector products of two2 vectors, vector triple product. Representation of vectors in terms of basis vectors	July	5
			Vector Analysis: Derivatives of a vector with respect to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and Stoke's theorem of vectors (Statement only) and their significances.	July	5
			Ordinary Differential Equations: 1st order homogeneous differential equations. 2nd order homogeneous and	August	5

			inhomogeneous differential equations with constant coefficients.		
		Oscillations	Simple harmonic motion. Differential equation of SHM and its solutions. Kinetic and Potential Energy, Total Energy and their time averages. Damped oscillations. Forced oscillations with harmonic forces.	Sept	9
		Elasticity	Hooke's law, elastic moduli, relation between elastic constants, Poisson's Ratio, Expression for Poisson's ratio in terms of elastic constants.	Sept	2
			Twisting couple on a cylinder. Determination of Rigidity modulus by static torsion. Torsional pendulum.	Nov	2
			Bending of beams, Cantilever	Nov	1
			Work done in stretching and work done in twisting a wire.	Nov	1
GE	GE3	Laws of Thermodynamics	Thermodynamic Description of system: Zeroth Law of thermodynamics and temperature.	July	9

			First law and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: General Relation between $C_p$ and $C_v$ , Work Done during Isothermal and Adiabatic Processes. Compressibility and Expansion Coefficients, Reversible and irreversible processes.		
			Second law and Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible & irreversible processes, Entropy-temperature diagrams.	August	8
			Third law of thermodynamics, unattainability of absolute zero.	Sept	1
		Thermodynamical Potentials	Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications: Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for ( $C_p$	Sept-Nov	9

			and $C_V$ ). TdS equations.		
DSE	DSE A1	Einstein coefficients and Rate equations	Historical background of laser, Einstein coefficients and stimulated light amplification: population inversion. Three level & four level lasers: Rate equation, condition for population inversion and threshold condition. minimum amount of pump power.	July	20
		Basic properties of laser	Coherence, directionality, monochromaticity, brightness	August	4
		Resonantors	Optical resonators. Different configurations of optical resonators. stability condition (no derivation required) and stability diagram for optical resonators. Cavity lifetime. The Quality factor	August	8
		Transient effect	Transverse and Longitudinal mode selection. Principle of Q-switching and Mode locking. Different methods of Q-switching : electro-optic Q-switching, Pockels cell .	Sept	5

		Basic Laser Systems	(i) Gas Laser • He-Ne laser • CO <sub>2</sub> Laser (ii) Solid state laser • Ruby Laser • Nd:YAG laser • Semiconductor laser (iii) Liquid laser: Dye laser.	Nov	7
		Practical properties and uses of laser	(a) The Line-shape function. Various Line broadening mechanisms: collisional broadening , Natural broadening, Doppler broadening. (b) Basic idea of Laser cooling and trapping	Nov	5

## Teaching Plan (Even Semester-CBCS)

**Department: Physics**

**Session: 2020--2021**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC13	Integrated Circuits	Principle of Design of monolithic Chip. Advantages and drawbacks of ICs. Scale of integration: SSI, MSI, LSI and VLSI	Jan	5
		Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and	Feb	7

			Stoke's theorem of vectors (Statement only) and their significances.		
		Digital Circuits	<p>(a) Difference between Analog and Digital Circuits.</p> <p>Introduction of switching algebra, Huntington's postulates.</p> <p>Combinational logic, Truth table.</p> <p>Introduction of basic logic functions AND, OR and NOT.</p> <p>Implementation of OR, AND, NOT Gates (realization using Diodes and Transistor). De Morgan's Theorems. NAND and NOR Gates as Universal Gates.</p> <p>XOR and XNOR Gates and application as Parity Checkers.</p> <p>Circuit representation of gates (both Usual and IEEE symbols).</p> <p>Introduction to different logics like DTL, TTL, MOS and CMOS.</p> <p>MOS and CMOS inverter circuit.</p> <p>NAND/NOR circuit using MOS logic.</p>	March	9
			Product term and sum term in	April	7

			logical expression. Sum of Product and Product of Sum and mixed expression. Min term and Max term in the expressions. Conversion between truth table and logical expression. Simplification of logical expression using Karnaugh Map.		
		Implementatio n of different circuits	Half and Full Adders. Subtractors, 4-bit binary adder/Subtractor. Combinational logic circuits using PAL/PLA, use of IC 7483 as adder and subtractor.	May	6
		Data processing circuits	Basic idea of Multiplexers, De-multiplexers, Decoders, Encoders.	May	5
CC	CC14	Crystal Structure	Solids: Amorphous and Crystalline Materials. Lattice Translation Vectors. Lattice with a Basis; Central and Non-Central Elements. Unit Cell. Miller Indices. Reciprocal Lattice. Types of Lattices. Brillouin Zones. Diffraction of X-rays by Crystals.	Jan	12



			Laue and Bragg's Law and their equivalence. Atomic and Geometrical Structure Factor. Basic idea of crystal indexing: examples with SC, BCC, FCC structure.		
		Elementary Lattice Dynamics	Lattice Vibrations and Phonons: Linear Monatomic and Diatomic Chains. Acoustical and Optical Phonons. Qualitative Description of the Phonon Spectrum in Solids. Dulong and Petit's Law, Einstein and Debye theories of specific heat of solids, $T^3$ law.	Feb	10
		Magnetic Properties of Matter	Dia, Para, Ferri and Ferromagnetic Materials. Classical Langevin Theory of Dia and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism (using partition function). Curie's law, Weiss's Theory of Ferromagnetism and Ferromagnetic Domains. Discussion of B-H	March	8

			Curve. Hysteresis and Energy Loss.		
		Dielectric Properties of Materials	Polarization. Local Electric Field at an Atom. Depolarization Field. Electric Susceptibility. Polarizability. Clausius Mosotti Equation. Classical Theory of Electric Polarizability. Normal and Anomalous Dispersion. Cauchy and Sellmeir relations. Langevin-Debye equation. Complex Dielectric Constant.	April	8
		Drude's theory	Free electron gas in metals, effective mass, drift current, mobility and conductivity, Hall effect in metals. Thermal conductivity. Lorentz number, limitation of Drude's theory.	March	4
		Elementary band theory	Kronig Penny model. Band Gap. effective mass and effective mass tensor. Conductor, Semiconductor (P and N type) and insulator. Conductivity of Semiconductor, mobility, Hall Effect.	April	12

			Measurement of conductivity (4 probe method) & Hall coefficient.		
		Superconductivity	Experimental Results. Critical Temperature. Critical magnetic field. Meissner effect. Type I and type II Superconductors, London's Equation and Penetration Depth. Isotope effect.	May	6
DSE	DSE A2	Optical Properties	Coulomb interaction in nanostructures. Concept of dielectric constant for nanostructures and charging of nanostructure. Quasi-particles and excitons. Excitons in direct and indirect band gap semiconductor nanocrystals. Quantitative treatment of quasi-particles and excitons, charging effects. Radiative processes: General formalization, absorption, emission and luminescence. Optical properties of heterostructures and nanostructures.	Jan-May	15

## Teaching Plan (Odd Semester-CBCS)

**Department: Physics**

**Session: 2020--2021**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC2	Fundamentals of Dynamics	Review of Newtons Laws: Mechanistic view of the Universe. Concepts of Inertial frames, force and mass. Galilean transformations and Galilean invariance. Solution of the equations of motion (E.O.M.) in simple force fields in one, two and three dimensions using cartesian, cylindrical polar and spherical polar coordinate systems.	July	6
			Dynamics of systems of particles: Difficulty of solving the E.O.M. for systems of particles. Newton's third Law. External and Internal forces. Momentum and Angular Momentum of a system. Torque	August	6

			<p>acting on a system.</p> <p>Conservation of Linear and Angular Momentum.</p> <p>Centre of mass and its properties.</p> <p>Two-body problem.</p> <p>Variable mass system: motion of rocket.</p>		
		Work and Energy	<p>Work Kinetic Energy Theorem.</p> <p>Conservative Forces: Force as the gradient of a scalar field.</p> <p>concept of Potential Energy.</p> <p>Other equivalent definitions of a Conservative Force.</p> <p>Conservation of Energy</p>	Sept	4
			<p>Qualitative study of one dimensional motion from potential energy curves. Stable and Unstable equilibrium.</p> <p>Energy of a system of particles.</p>	Sept	4
		Gravitation and Central Force Motion	<p>Central Force.</p> <p>Reduction of the two body central force problem to a one body problem.</p> <p>Setting up the E.O.M. in plane polar coordinates.</p>	Nov	4
			Differential	Nov	4

			equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.		
			Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Nov	2
GE	GE1	Mathematical Methods	(a) Vector Algebra: Addition of vectors and multiplication by a scalar. Scalar and vector products of two vectors, vector triple product. Representation of vectors in terms of basis vectors. (b) Vector Analysis: Derivatives of a vector with respect to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and Stoke's theorem of vectors (Statement only) and their	July-August	15

			significances. (c) Ordinary Differential Equations: 1st order homogeneous differential equations. 2nd order homogeneous and inhomogeneous differential equations with constant coefficients.		
		Introduction to Newtonian Mechanics	(a) Laws of Motion: Idea of space time for Newtonian Mechanics, frames of reference, Newton's Laws of motion. Dynamics of a system of particles. Conservation of momentum. Centre of Mass. (b) Work-energy theorem. Conservative forces. Concept of Potential Energy. Conservation of energy	August-sept	5
		Rotational Motion	Rotation of a rigid body about a fixed axis. Angular velocity and angular momentum. Moment of Inertia. Calculation of moment of inertia for rectangular, cylindrical and spherical bodies.	Sept-Nov	10

			Torque. Conservation of angular momentum.		
GE	GE3	Laws of Thermodynamics	(a) Thermodynamic Description of system: Zeroth Law of thermodynamics and temperature. First law and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: General Relation between $C_p$ and $C_v$ , Work Done during Isothermal and Adiabatic Processes. Compressibility and Expansion Coefficients, Reversible and irreversible processes. (b) Second law and Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible & irreversible processes, Entropy-temperature diagrams. (c) Third law of thermodynamics, unattainability of absolute zero.	July-August	18
		Thermodyna	Enthalpy, Gibbs,	Sept	9



		<p>Thermodynamic Potentials</p>	<p>Helmholtz and Internal Energy functions, Maxwell's relations and applications: Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for (<math>C_p</math> and <math>C_v</math>). TdS equations.</p>		
		<p>Kinetic Theory of Gases</p>	<p>Derivation of Maxwell's law of distribution of velocities and its experimental verification, Mean free path (Zeroth Order), Transport Phenomena: Viscosity, Conduction and Diffusion (for vertical case), Law of equipartition of energy (no derivation) and its applications to specific heat of gases; mono-atomic and diatomic gases.</p>	<p>Sept - Nov</p>	<p>10</p>
		<p>Theory of Radiation</p>	<p>(a) Blackbody radiation, Spectral distribution, Concept of Energy Density, Derivation of Planck's law, Deduction of Wien's distribution law, Rayleigh- Jeans Law, Stefan Boltzmann Law</p>	<p>Nov</p>	<p>8</p>

			and Wien's displacement law from Planck's law.		
CC	CC7	Radiation and its nature	<p>(a) Blackbody Radiation, Planck's quantum hypothesis, Planck's constant (derivation of Planck formula is not required). Photoelectric effect and Compton scattering - light as a collection of photons. Davisson-Germer experiment. De Broglie wavelength and matter waves. Wave-particle duality. Wave description of particles by wave packets. Group and Phase velocities and relation between them. Probability interpretation: Normalized wave functions as probability amplitudes. (b) Two-slit experiment with photons and electrons. Linear superposition principle as a consequence. (c) Position measurement, gamma ray microscope</p>	July-August	15

			<p>thought experiment.</p> <p>Heisenberg uncertainty principle (Statement with illustrations).</p> <p>Impossibility of a particle following a trajectory</p>		
		Basics of Quantum Mechanics	<p>(a) Quantum measurements: Deterministic vs probabilistic view points. States as normalised vectors (normalised wave functions). Dynamical variables as linear Hermitian operators (position, momentum, angular momentum, and energy as examples). (b) Schrödinger equation as a first principle. Probabilistic interpretation of wave function and equation of continuity (in 1D). Time evolution of wave function and <math>\exp(iHt/\hbar)</math> as the evolution operator. Stationary states. Eigenvalue equation. (c) Application to one dimensional systems: Boundary</p>	Sept-Nov	15

			<p>conditions on wave functions.</p> <p>Particle in an infinitely rigid box: energy eigenvalues and Eigen functions, normalization.</p> <p>Quantum dot.</p> <p>Quantum mechanical tunneling across a step potential &amp; rectangular potential barrier, <math>\alpha</math>-decay as an example. (d)</p> <p>Simultaneous measurements: Compatible and incompatible observables and their relation to commutativity.</p> <p>Heisenberg's uncertainty relation for a pair of incompatible observables.</p> <p>Illustration of the ideas using <math>[x_i, p_j]</math> and <math>[L_i, L_j]</math>.</p>		
--	--	--	---	--	--

## Teaching Plan (Even Semester-CBCS)

**Department: Physics**

**Session: 2019--2020**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC13	Integrated Circuits	Principle of Design of monolithic Chip. Advantages and drawbacks of ICs. Scale of integration: SSI, MSI, LSI and VLSI	Jan	5
		Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and	Feb	7

			Stoke's theorem of vectors (Statement only) and their significances.		
		Digital Circuits	<p>(a) Difference between Analog and Digital Circuits.</p> <p>Introduction of switching algebra, Huntington's postulates.</p> <p>Combinational logic, Truth table.</p> <p>Introduction of basic logic functions AND, OR and NOT.</p> <p>Implementation of OR, AND, NOT Gates (realization using Diodes and Transistor). De Morgan's Theorems. NAND and NOR Gates as Universal Gates.</p> <p>XOR and XNOR Gates and application as Parity Checkers.</p> <p>Circuit representation of gates (both Usual and IEEE symbols).</p> <p>Introduction to different logics like DTL, TTL, MOS and CMOS.</p> <p>MOS and CMOS inverter circuit.</p> <p>NAND/NOR circuit using MOS logic.</p>	March	9
			Product term and sum term in	April	7

			logical expression. Sum of Product and Product of Sum and mixed expression. Min term and Max term in the expressions. Conversion between truth table and logical expression. Simplification of logical expression using Karnaugh Map.		
		Implementatio n of different circuits	Half and Full Adders. Subtractors, 4-bit binary adder/Subtractor. Combinational logic circuits using PAL/PLA, use of IC 7483 as adder and subtractor.	May	6
		Data processing circuits	Basic idea of Multiplexers, De-multiplexers, Decoders, Encoders.	May	5
CC	CC14	Crystal Structure	Solids: Amorphous and Crystalline Materials. Lattice Translation Vectors. Lattice with a Basis; Central and Non-Central Elements. Unit Cell. Miller Indices. Reciprocal Lattice. Types of Lattices. Brillouin Zones. Diffraction of X-rays by Crystals.	Jan	12

			Laue and Bragg's Law and their equivalence. Atomic and Geometrical Structure Factor. Basic idea of crystal indexing: examples with SC, BCC, FCC structure.		
		Elementary Lattice Dynamics	Lattice Vibrations and Phonons: Linear Monatomic and Diatomic Chains. Acoustical and Optical Phonons. Qualitative Description of the Phonon Spectrum in Solids. Dulong and Petit's Law, Einstein and Debye theories of specific heat of solids, $T^3$ law.	Feb	10
		Magnetic Properties of Matter	Dia, Para, Ferri and Ferromagnetic Materials. Classical Langevin Theory of Dia and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism (using partition function). Curie's law, Weiss's Theory of Ferromagnetism and Ferromagnetic Domains. Discussion of B-H	March	8



			Curve. Hysteresis and Energy Loss.		
		Dielectric Properties of Materials	Polarization. Local Electric Field at an Atom. Depolarization Field. Electric Susceptibility. Polarizability. Clausius Mosotti Equation. Classical Theory of Electric Polarizability. Normal and Anomalous Dispersion. Cauchy and Sellmeir relations. Langevin-Debye equation. Complex Dielectric Constant.	April	8
		Drude's theory	Free electron gas in metals, effective mass, drift current, mobility and conductivity, Hall effect in metals. Thermal conductivity. Lorentz number, limitation of Drude's theory.	March	4
		Elementary band theory	Kronig Penny model. Band Gap. effective mass and effective mass tensor. Conductor, Semiconductor (P and N type) and insulator. Conductivity of Semiconductor, mobility, Hall Effect.	April	12

			Measurement of conductivity (4 probe method) & Hall coefficient.		
		Superconductivity	Experimental Results. Critical Temperature. Critical magnetic field. Meissner effect. Type I and type II Superconductors, London's Equation and Penetration Depth. Isotope effect.	May	6
DSE	DSE A2	Optical Properties	Coulomb interaction in nanostructures. Concept of dielectric constant for nanostructures and charging of nanostructure. Quasi-particles and excitons. Excitons in direct and indirect band gap semiconductor nanocrystals. Quantitative treatment of quasi-particles and excitons, charging effects. Radiative processes: General formalization, absorption, emission and luminescence. Optical properties of heterostructures and nanostructures.	Jan-May	15

## Teaching Plan (Odd Semester-CBCS)

**Department: Physics**

**Session: 2019--2020**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	GE1	Mathematical Methods	Vector Algebra: Addition of vectors and multiplication by a scalar. Scalar and vector products of two2 vectors, vector triple product. Representation of vectors in terms of basis vectors	July	5
			Vector Analysis: Derivatives of a vector with respect to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and Stoke's theorem of vectors (Statement only) and their significances.	July	5
			Ordinary Differential Equations: 1st order homogeneous differential equations. 2nd order homogeneous and	August	5

			inhomogeneous differential equations with constant coefficients.		
		Oscillations	Simple harmonic motion. Differential equation of SHM and its solutions. Kinetic and Potential Energy, Total Energy and their time averages. Damped oscillations. Forced oscillations with harmonic forces.	Sept	9
		Elasticity	Hooke's law, elastic moduli, relation between elastic constants, Poisson's Ratio, Expression for Poisson's ratio in terms of elastic constants.	Sept	2
			Twisting couple on a cylinder. Determination of Rigidity modulus by static torsion. Torsional pendulum.	Nov	2
			Bending of beams, Cantilever	Nov	1
			Work done in stretching and work done in twisting a wire.	Nov	1
GE	GE3	Laws of Thermodynamics	Thermodynamic Description of system: Zeroth Law of thermodynamics and temperature.	July	9

			First law and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: General Relation between $C_p$ and $C_v$ , Work Done during Isothermal and Adiabatic Processes. Compressibility and Expansion Coefficients, Reversible and irreversible processes.		
			Second law and Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible & irreversible processes, Entropy-temperature diagrams.	August	8
			Third law of thermodynamics, unattainability of absolute zero.	Sept	1
		Thermodynamical Potentials	Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications: Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for ( $C_p$	Sept-Nov	9

			and $C_V$ ). TdS equations.		
DSE	DSE A1	Einstein coefficients and Rate equations	Historical background of laser, Einstein coefficients and stimulated light amplification: population inversion. Three level & four level lasers: Rate equation, condition for population inversion and threshold condition. minimum amount of pump power.	July	20
		Basic properties of laser	Coherence, directionality, monochromaticity, brightness	August	4
		Resonantors	Optical resonators. Different configurations of optical resonators. stability condition (no derivation required) and stability diagram for optical resonators. Cavity lifetime. The Quality factor	August	8
		Transient effect	Transverse and Longitudinal mode selection. Principle of Q-switching and Mode locking. Different methods of Q-switching : electro-optic Q-switching, Pockels cell .	Sept	5

		Basic Laser Systems	(i) Gas Laser • He-Ne laser • CO <sub>2</sub> Laser (ii) Solid state laser • Ruby Laser • Nd:YAG laser • Semiconductor laser (iii) Liquid laser: Dye laser.	Nov	7
		Practical properties and uses of laser	(a) The Line-shape function. Various Line broadening mechanisms: collisional broadening , Natural broadening, Doppler broadening. (b) Basic idea of Laser cooling and trapping	Nov	5

## Teaching Plan (Even Semester-CBCS)

**Department: Physics**

**Session: 2018--2019**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC13	Integrated Circuits	Principle of Design of monolithic Chip. Advantages and drawbacks of ICs. Scale of integration: SSI, MSI, LSI and VLSI	Jan	5
		Number System	Binary Numbers. Decimal to Binary and Binary to Decimal Conversion. BCD, Octal and Hexadecimal numbers. Signed and unsigned number representation of binary system. Representation of negative number. 1's Complement and 2's Complement method of subtraction to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence	Feb	7



			theorem and Stoke's theorem of vectors (Statement only) and their significances.		
		Digital Circuits	(a) Difference between Analog and Digital Circuits. Introduction of switching algebra, Huntington's postulates. Combinational logic, Truth table. Introduction of basic logic functions AND, OR and NOT. Implementation of OR, AND, NOT Gates (realization using Diodes and Transistor). De Morgan's Theorems. NAND and NOR Gates as Universal Gates. XOR and XNOR Gates and application as Parity Checkers. Circuit representation of gates (both Usual and IEEE symbols). Introduction to different logics like DTL, TTL, MOS and CMOS. MOS and CMOS inverter circuit. NAND/NOR circuit using MOS logic.	March	9
			Product term and	April	7

			sum term in logical expression. Sum of Product and Product of Sum and mixed expression. Min term and Max term in the expressions. Conversion between truth table and logical expression. Simplification of logical expression using Karnaugh Map.		
		Implementatio n of different circuits	Half and Full Adders. Subtractors, 4-bit binary adder/Subtractor. Combinational logic circuits using PAL/PLA, use of IC 7483 as adder and subtractor.	May	6
		Data processing circuits	Basic idea of Multiplexers, De-multiplexers, Decoders, Encoders.	May	5
CC	CC14	Crystal Structure	Solids: Amorphous and Crystalline Materials. Lattice Translation Vectors. Lattice with a Basis; Central and Non-Central Elements. Unit Cell. Miller Indices. Reciprocal Lattice. Types of Lattices. Brillouin Zones. Diffraction of X-	Jan	12

			rays by Crystals. Laue and Bragg's Law and their equivalence. Atomic and Geometrical Structure Factor. Basic idea of crystal indexing: examples with SC, BCC, FCC structure.		
		Elementary Lattice Dynamics	Lattice Vibrations and Phonons: Linear Monatomic and Diatomic Chains. Acoustical and Optical Phonons. Qualitative Description of the Phonon Spectrum in Solids. Dulong and Petit's Law, Einstein and Debye theories of specific heat of solids, $T^3$ law.	Feb	10
		Magnetic Properties of Matter	Dia, Para, Ferri and Ferromagnetic Materials. Classical Langevin Theory of Dia and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism (using partition function). Curie's law, Weiss's Theory of Ferromagnetism and Ferromagnetic Domains.	March	8

			Discussion of B-H Curve. Hysteresis and Energy Loss.		
		Dielectric Properties of Materials	Polarization. Local Electric Field at an Atom. Depolarization Field. Electric Susceptibility. Polarizability. Clausius Mosotti Equation. Classical Theory of Electric Polarizability. Normal and Anomalous Dispersion. Cauchy and Sellmeir relations. Langevin-Debye equation. Complex Dielectric Constant.	April	8
		Drude's theory	Free electron gas in metals, effective mass, drift current, mobility and conductivity, Hall effect in metals. Thermal conductivity. Lorentz number, limitation of Drude's theory.	March	4
		Elementary band theory	Kronig Penny model. Band Gap. effective mass and effective mass tensor. Conductor, Semiconductor (P and N type) and insulator. Conductivity of Semiconductor, mobility, Hall	April	12

			Effect. Measurement of conductivity (4 probe method) & Hall coefficient.		
		Superconductivity	Experimental Results. Critical Temperature. Critical magnetic field. Meissner effect. Type I and type II Superconductors, London's Equation and Penetration Depth. Isotope effect.	May	6
DSE	DSE A2	Optical Properties	Coulomb interaction in nanostructures. Concept of dielectric constant for nanostructures and charging of nanostructure. Quasi-particles and excitons. Excitons in direct and indirect band gap semiconductor nanocrystals. Quantitative treatment of quasi-particles and excitons, charging effects. Radiative processes: General formalization, absorption, emission and luminescence. Optical properties of heterostructures and nanostructures.	Jan-May	15

## Teaching Plan (Odd Semester-CBCS)

**Department: Physics**

**Session: 2018--2019**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	GE1	Mathematical Methods	Vector Algebra: Addition of vectors and multiplication by a scalar. Scalar and vector products of two2 vectors, vector triple product. Representation of vectors in terms of basis vectors	July	5
			Vector Analysis: Derivatives of a vector with respect to a parameter. Gradient, divergence and Curl. Vector integration, line, surface and volume integrals of vector fields. Gauss divergence theorem and Stoke's theorem of vectors (Statement only) and their significances.	July	5
			Ordinary Differential Equations: 1st order homogeneous differential equations. 2nd order homogeneous and	August	5

			inhomogeneous differential equations with constant coefficients.		
		Oscillations	Simple harmonic motion. Differential equation of SHM and its solutions. Kinetic and Potential Energy, Total Energy and their time averages. Damped oscillations. Forced oscillations with harmonic forces.	Sept	9
		Elasticity	Hooke's law, elastic moduli, relation between elastic constants, Poisson's Ratio, Expression for Poisson's ratio in terms of elastic constants.	Sept	2
			Twisting couple on a cylinder. Determination of Rigidity modulus by static torsion. Torsional pendulum.	Nov	2
			Bending of beams, Cantilever	Nov	1
			Work done in stretching and work done in twisting a wire.	Nov	1
GE	GE3	Laws of Thermodynamics	Thermodynamic Description of system: Zeroth Law of thermodynamics and temperature.	July	9

			First law and internal energy, conversion of heat into work, Various Thermodynamical Processes, Applications of First Law: General Relation between $C_p$ and $C_v$ , Work Done during Isothermal and Adiabatic Processes. Compressibility and Expansion Coefficients, Reversible and irreversible processes.		
			Second law and Entropy, Carnot's cycle & Carnot's theorem, Entropy changes in reversible & irreversible processes, Entropy-temperature diagrams.	August	8
			Third law of thermodynamics, unattainability of absolute zero.	Sept	1
		Thermodynamical Potentials	Enthalpy, Gibbs, Helmholtz and Internal Energy functions, Maxwell's relations and applications: Joule-Thompson Effect, Clausius-Clapeyron Equation, Expression for ( $C_p$	Sept-Nov	9



			and $C_V$ ). TdS equations.		
DSE	DSE A1	Einstein coefficients and Rate equations	Historical background of laser, Einstein coefficients and stimulated light amplification: population inversion. Three level & four level lasers: Rate equation, condition for population inversion and threshold condition. minimum amount of pump power.	July	20
		Basic properties of laser	Coherence, directionality, monochromaticity, brightness	August	4
		Resonantors	Optical resonators. Different configurations of optical resonators. stability condition (no derivation required) and stability diagram for optical resonators. Cavity lifetime. The Quality factor	August	8
		Transient effect	Transverse and Longitudinal mode selection. Principle of Q-switching and Mode locking. Different methods of Q-switching : electro-optic Q-switching, Pockels cell .	Sept	5

		Basic Laser Systems	(i) Gas Laser • He-Ne laser • CO <sub>2</sub> Laser (ii) Solid state laser • Ruby Laser • Nd:YAG laser • Semiconductor laser (iii) Liquid laser: Dye laser.	Nov	7
		Practical properties and uses of laser	(a) The Line-shape function. Various Line broadening mechanisms: collisional broadening , Natural broadening, Doppler broadening. (b) Basic idea of Laser cooling and trapping	Nov	5

## Teaching Plan (1+1+1 System)

**Department: Physics**

**Session: 2018--2019**

**Name of the teacher: Sekhar Dey**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
3 <sup>rd</sup> Year (H)	Paper-V(Unit-II)	Time dependent and time independent Schrodinger equation	Eigenstates, normalization and orthonormality	July-August	4
		Simple applications of Quantum Mechanics	One dimensional potential well and barrier, boundary conditions, bound and unbound states. Reflection and transmission coefficients for a rectangular barrier in one dimension – explanation of alpha decay. Free particle in one dimensional box, box normalization, momentum eigenfunctions of a free particle. Linear harmonic oscillator, energy eigenvalues from Hermite differential equation, wave function for ground state, parity of wave function.	Sept-Dec	11
		Schrodinger equation in spherical polar coordinates	Angular momentum operators and their commutation relations; eigenvalues and eigenfunctions of $L^2$ and $L_z$ ; theorem of addition of angular	Jan-May	10

			<p>momenta [statement with examples]. The hydrogen atom problem – stationary state wavefunctions as simultaneous eigenfunctions of <math>H</math>, <math>L^2</math>, and <math>L_z</math>; radial Schrodinger equation and energy eigenvalues [Laguerre polynomial solutions to be assumed]; degeneracy of the energy eigenvalues.</p>		
3 <sup>rd</sup> General	Paper-IVA	Pumps, gauges and engine	<p>1. Production and measurement of high vacuum : Rotary and diffusion pump, McLeod, Pirani, and Penning gauges. 2. Engines : Heat engines, thermal efficiency, indicated Horse- power and brake Horse-power, Otto 22 cycle and Diesel cycle, four- stroke petrol and diesel engines, calculation of efficiency and comparison.</p>	July- Sept	10
		Energy Sources	<p>1. Conventional energy sources : thermal power plant, relevance of Rankine cycle (qualitative discussion), steam turbine, hydro- electric power plant --- basic principle. 2. Non- conventional energy sources :</p>	Nov- May	15

			solar, wind, tidal, geothermal, and biogas sources, elementary idea of production and uses.		
--	--	--	--	--	--

## Teaching Plan

**Department: Physics**

**Session: 2022-2023**

**Name of the teacher: Dr. Vikram Bhagat**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC2	Mechanics	<i>1) Gravitation and Central Force Motion.</i> <i>2) Non-□ Inertial Systems.</i> <i>3) Fluid Motion.</i>	1)a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates.		4
			b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.		5
			c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.		4
			2)a) Non-inertial frames and idea of fictitious forces.		4
			b) E.O.M with respect to a uniformly accelerating frame.		5
			c) E.O.M with respect to a uniformly rotating frame. Centrifugal and Coriolis forces. Laws of Physics in a laboratory on the surface of the earth.		6
			3) a) Kinematics of Moving Fluids: Idea of compressible and incompressible fluids, Equation of continuity;		3
CC6		I. Introduction to Thermodynamics.	b) Streamline and turbulent flow, Reynold's number. Euler's Equation. The special case of fluid statics $\mathbf{F} = \nabla p$ . Simple applications (e.g.: Pascal's law and Archimedes principle). Bernoulli's Theorem.		4
			1. (a) Zeroth and First Law of Thermodynamics: Extensive and		8

		<p>2. <i>Thermodynamic Potentials.</i></p> <p>3. <i>Kinetic Theory of Gases.</i></p> <p>4. <i>Conduction of Heat.</i></p>	<p>intensive Thermodynamic Variables, Thermodynamic Equilibrium, Zeroth Law of Thermodynamics &amp; Concept of Temperature. Concept of Work &amp; Heat, State Functions, Internal Energy and First Law of Thermodynamics. Its differential form, First Law &amp; various processes. Applications of First Law: General Relation between CP and CV, Work done during Isothermal and Adiabatic Processes, Compressibility and Expansion Coefficient.</p> <p>(b) Second Law of Thermodynamics: Reversible and Irreversible process with examples. Conversion of Work into Heat and Heat into Work. Heat Engines. Carnot's Cycle, Carnot engine &amp; efficiency. Refrigerator &amp; coefficient of performance, 2nd Law of Thermodynamics: Kelvin-Planck and Clausius Statements and their Equivalence.</p> <p>(c) Carnot's Theorem. Applications of Second Law of Thermodynamics: Thermodynamic Scale of Temperature and its Equivalence to Perfect Gas Scale.</p> <p>(d) Entropy: Concept of Entropy, Clausius Theorem. Clausius Inequality, Second Law of Thermodynamics in terms of Entropy. Entropy of a perfect gas. Principle of Increase of Entropy. Entropy Changes in Reversible and Irreversible processes with examples. Entropy of the Universe. Principle of Increase of Entropy. Temperature-Entropy diagrams for Cycle. Third Law of Thermodynamics. Unattainability of Absolute Zero.</p> <p>2. (a) Thermodynamic Potentials: Internal Energy, Enthalpy, Helmholtz Free Energy, Gibb's Free Energy, Their definitions, Properties and</p>		<p>8</p> <p>4</p> <p>7</p> <p>7</p>
--	--	---	---	--	-------------------------------------

			<p>Applications. Surface Films and Variation of Surface Tension with Temperature. Magnetic Work, Cooling due to adiabatic demagnetization, First and second order phase transitions with examples, Clausius Clapeyron equation and Ehrenfest equations.</p> <p>(b) Maxwell's thermodynamic relations. Derivations and applications of Maxwell's Relations: (1) Clausius Clapeyron equation, (2) Values of <math>C_p - C_v</math>, (3) TdS equations, (4) Joule-Kelvin coefficient for Ideal and Van der Waal Gases, (5) Energy equations, (6) Change of Temperature during adiabatic process. Joule's experiment. Free adiabatic expansion of a perfect gas.</p> <p>(c) Joule-Thomson porous plug experiment: Joule- Thomson Effect for Real and Van der Waal Gases. Temperature of inversion. Joule Thomson cooling.</p>		6
			<p>3. (a) Distribution of velocities: Maxwell-Boltzmann law of distribution of velocities in an ideal gas and its experimental verification. Doppler broadening of spectral lines and Stern's experiment. Mean, RMS and most probable speeds. Degrees of Freedom. Law of Equipartition of energy (No proof required). Specific heats of Gases.</p>		4
			<p>(b) Molecular collisions: mean free path. Collision probability. Estimates of mean free path. Transport phenomenon in ideal gases: (1) Viscosity, (2) Thermal Conductivity and (3) Diffusion. Brownian motion and its significance.</p>		6
			<p>(c) Real Gases: Behavior of real gases: Deviations from the ideal gas equation. The virial equation. Andrew's experiments on <math>\text{CO}_2</math> gas. Critical constants. Continuity of liquid and gaseous state. Vapour and gas. Boyle temperature. Van der</p>		6



			<p>Waal's equation of state for real gases. Values of critical constants. Law of corresponding states. Comparison with experimental curves. P-V diagrams.</p> <p>4. Thermal conductivity, diffusivity. Fourier's equation for heat conduction its solution for rectilinear flow of heat.</p>		5
<b>GE1</b>	<b>Mechanics</b>	<p>4. <i>Central force and Gravitation.</i>  5. <i>Oscillations.</i>  6. <i>Elasticity.</i>  7. <i>Surface Tension.</i></p>	4. (a) Motion of a particle in a central force field. Conservation of angular momentum leading to restriction of the motion to a plane and constancy of areal velocity. Kepler's Laws (statement only). Newton's law of gravitation. Satellite in circular orbit and applications. Geosynchronous orbits. Basic idea of global positioning system (GPS).		12
			5. Simple harmonic motion. Differential equation of SHM and its solutions. Kinetic and potential energy, Total energy and their time averages. Damped oscillations. Forced oscillations with harmonic forces.		11
			6. (a) Hooke's law, elastic moduli, relation between elastic constants, Poisson's ratio, Expression for Poisson's ratio in terms of elastic constants.		4
			(b) Twisting couple on a cylinder. Determination of Rigidity modulus by static torsion. Torsional pendulum.		2
			(c) Bending of beams, Cantilever.		2
			(d) Work done in stretching and work done in twisting a wire.		2
			7. Molecular theory of surface tension, surface energy, comparison between surface tension and surface energy, variation of surface tension with temperature, application to spherical drops and bubbles Synclastic and anticlastic surface, excess of pressure, capillary rise of liquid.		6


## Teaching Plan

**Department:** Physics

**Session:** 2018-19

**Name of the teacher:** Dr. Kalipada Das

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Honours (1+1+1)	Part-I: Paper-1 Math Methods-I	<i>Random Variables</i>	Random variables and probabilities - statistical expectation value, variance; mathematical operations	July	4
				Aug	5
		<i>Probability</i>	Analysis of random errors: Probability distribution functions (Binomial, Gaussian, and Poisson)	Aug	3
	Part-I: Paper-2 (Unit-3) – Thermal Physics	<i>Kinetic Theory of Gases</i>	Basic assumptions of kinetic theory, Ideal gas approximation, deduction of perfect gas laws.	Jan	3
			Maxwell's distribution law (both in terms of velocity and energy), root mean square and most probable speeds. Finite size of molecules :	Feb	4
			Collision probability, Distribution of free paths and mean free path from Maxwell's distribution. Degrees of freedom, equipartition of energy (detailed derivation not required).	Mar	4
	Part-II: Paper IVA Unit-I – Quantum Mechanics	<i>Basic Quantum Mechanics</i>	de Broglie hypothesis. Electron double-slit experiment. Compton effect, Davisson-Germer experiment, Heisenberg's uncertainty principle (statement) with illustrations. Concept of wave function as describing the dynamical state of a single particle.	Jul	8
		Basic postulates of quantum mechanics	Group and phase velocities, classical velocity of a particle and the group velocity of the wave representing the particle. Principle of superposition. Schrodinger equation. Probabilistic interpretation; equation of continuity, probability current density. Boundary conditions on the wave function.	Aug	4
		Basic postulates of quantum mechanics	Dynamical variables as linear hermitian operators and eigenvalue equations, Momentum, energy and angular momentum operators. Measurement of observables, expectation values. Commutation relations between operators. Compatible observables and simultaneous measurements, Ehrenfest	sep	6

			theorem		
Honours (1+1+1)	Part-III: Paper VIIIA Unit-I I– Solid State Physics	Crystal Structure	Crystalline and amorphous solids, translational symmetry. Elementary ideas about crystal structure, lattice and bases, unit cell, reciprocal lattice, fundamental types of lattices, Miller indices, lattice planes, simple cubic, f.c.c. and b.c.c. lattices. Laue and Bragg equations. Determination of crystal structure with X-rays	Nov	8
		Magnetic properties of materials	Dia, para and ferro-magnetic properties of solids. Langevin's theory of diamagnetism and paramagnetism. Quantum theory of paramagnetism, Curie's law. Ferromagnetism : spontaneous magnetization and domain structure; temperature dependence of spontaneous magnetisation; Curie-Weiss law, explanation of hysteresis.	Jan	6
		Lattice vibrations	Elastic and atomic force constants; Dynamics of a chain of similar atoms and chain of two types of atoms; optical and acoustic modes; interaction of light with ionic crystals. Einstein's and Debye's theories of specific heats of solids.	Feb	3
		Superconductiv ity	Introduction (Kamerlingh-Onnes experiment), effect of magnetic field, Type-I and type-II superconductors, Isotope effect. Meissner effect. Heat capacity. Energy gap. Ideas about High-Tc superconductors.	Mar	3
General (1+1+1)	Part-I Paper IA Unit I: Classical Mechanics and Gravitation	Vectors :	Axial and polar vectors, dot product and cross product, scalar triple product and vector triple product.	July	4
		Vectors :	Scalar and vector fields --- gradient, divergence and curl, statement of divergence theorem, statement of Stokes' theorem.	Aug	4
		Mechanics of a Particle :	(a) Newton's laws of motion, principle of conservation of linear momentum, time and path integral of force, conservative force field, concept of potential, conservation of total energy, equation of motion of a system with variable mass.	Sep	4
		Mechanics of a Particle :	(b) Rotational motion, angular velocity, angular acceleration, angular momentum, torque, fundamental equation of rotational motion, principle of conservation of angular momentum, radial and cross-radial acceleration.	Nov	4
	Part-III Paper IVA	Energy Sources	<i>Conventional energy sources</i> : thermal power plant, relevance of Rankine cycle (qualitative discussion), steam turbine,	Jan	4

			hydro-electric power plant --- basic principle.		
			<i>Non-conventional energy sources</i> : solar, wind, tidal, geothermal, and biogas sources, elementary idea of production and uses.	Feb	4

## Teaching Plan

**Department:** Physics

**Session:** 2019-20

**Name of the teacher:** Dr. Kalipada Das

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC2 Mechanics	Gravitation and Central Force Motion	(a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates.	Jul	2
			(b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.	Aug	4
			(c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Sep	4
	CC2 Mechanics	Non-Inertial Systems	Non-inertial frames and idea of fictitious forces. E.O.M with respect to a uniformly accelerating frame.	Jul	2
			E.O.M with respect to a uniformly rotating frame - Centrifugal and Coriolis forces. Laws of Physics in a laboratory on the surface of the earth.	Aug	2
		Fluid Motion	Kinematics of Moving Fluids: Idea of compressible and incompressible fluids,	Aug	2
		Fluid Motion	The special case of fluid statics $\vec{F} = -\nabla p$ . Simple applications (e.g: Pascal's law and Archimedes principle). Bernoulli's Theorem.	Sep	4
		Fluid Motion	Equation of continuity; streamline and turbulent flow, Reynold's number. Euler's Equation. Memory Interfacing. Memory Map.	Nov	4
	CC5 Mathematical Physics - II	Some Special Integrals	Beta and Gamma Functions and Relation between them. Expression of Integrals in terms of Gamma Functions. Error Function (Probability Integral). multiply connected region.	Jan	8
Hons (1+1+1)	Part-III: Paper VIIIA Unit-I I– Solid State	Crystal Structure	Crystalline and amorphous solids, translational symmetry. Elementary ideas about crystal structure, lattice and bases, unit cell, reciprocal lattice, fundamental types of lattices, Miller indices, lattice	Jul	6

	Physics		planes, simple cubic, f.c.c. and b.c.c. lattices. Laue and Bragg equations. Determination of crystal structure with X-rays		
		Magnetic properties of materials	Dia, para and ferro-magnetic properties of solids. Langevin's theory of diamagnetism and paramagnetism. Quantum theory of paramagnetism, Curie's law. Ferromagnetism : spontaneous magnetization and domain structure; temperature dependence of spontaneous magnetisation; Curie-Weiss law, explanation of hysteresis.	Aug	2
		Superconductivity	Introduction (Kamerlingh-Onnes experiment), effect of magnetic field, Type-I and type-II superconductors, Isotope effect. Meissner effect. Heat capacity. Energy gap. Ideas about High-Tc superconductors.	Aug	6
GE		Theory of Radiation	Blackbody radiation, Spectral distribution, Concept of Energy Density, Derivation of Planck's law,	Jul	2
			Deduction of Wien's distribution law, Rayleigh- Jeans Law, Stefan Boltzmann Law and Wien's displacement law from Planck's law.	Aug	2
		Energy Sources	<i>Conventional energy sources</i> : thermal power plant, relevance of Rankine cycle (qualitative discussion), steam turbine, hydro-electric power plant --- basic principle.	Mar	4
		Energy Sources	<i>Non-conventional energy sources</i> : solar, wind, tidal, geothermal, and biogas sources, elementary idea of production and uses.	April	4

## Teaching Plan

**Department:**      **Physics**

**Session: 2020-21**

**Name of the teacher: Dr. Kalipada Das**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC2: Mechanics	Gravitation and Central Force Motion	(a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates.	Dec	4
		Gravitation and Central Force Motion	(b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.	Dec	4
		Gravitation and Central Force Motion	(c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Jan	8
	CC2: Mechanics	Fluid Motion	Non-inertial frames and idea of fictitious forces. E.O.M with respect to a uniformly accelerating frame..	Dec	8
		Fluid Motion	The special case of fluid statics $F \sim \nabla p$ . Simple applications (e.g: Pascal's law and Archimedes principle). Bernoulli's Theorem.	Jan	8
		Fluid Motion	Equation of continuity; streamline and turbulent flow, Reynold's number. Euler's Equation. Memory Interfacing. Memory Map.	Feb	8
CC	CC7 Modern Physics	<i>Basic Quantum Mechanics</i>	de Broglie hypothesis. Electron double-slit experiment. Compton effect, Davisson-Germer experiment, Heisenberg's uncertainty principle (statement) with illustrations. Concept of wave function as describing the dynamical state of a single particle.	April	2
		Basic ideas	(a) Quantum measurements: Deterministic vs probabilistic view points. States as normalised vectors (normalised wave functions). Dynamical variables as linear Hermitian operators (position, momentum, angular momentum, and energy as examples).	April	2
			) Schrödinger equation as a first principle. Probabilistic interpretation of	May	2



			wavefunction and equation of continuity (in 1D). Time evolution of wavefunction and $\exp(iHt/\hbar)$ as the evolution operator. Stationary states. Eigenvalue equation.		
		Angular Momentum	Application to one dimensional systems: Boundary conditions on wave functions. Particle in an infinitely rigid box: energy eigenvalues and eigenfunctions, normalization. Quantum dot. Quantum mechanical tunnelling across a step potential & rectangular potential barrier, $\alpha$ -decay as an example.	May	4
		Angular Momentum	(d) Simultaneous measurements: Compatible and incompatible observables and their relation to commutativity. Heisenberg's uncertainty relation for a pair of incompatible observables. Illustration of the ideas using $[x_i, p_j]$ and $[L_i, L_j]$ .	June	4

## Teaching Plan

**Department:** Physics

**Session:** 2021-22

**Name of the teacher:** Dr. Kalipada Das

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC2: Mechanics	Gravitation and Central Force Motion	(a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates.	Aug	4
		Gravitation and Central Force Motion	(b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.	Sep	4
		Gravitation and Central Force Motion	(c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Sep	4
	CC2: Mechanics	Fluid Motion	Non-inertial frames and idea of fictitious forces. E.O.M with respect to a uniformly accelerating frame..	Aug	4
			The special case of fluid statics $F \sim \nabla p$ . Simple applications (e.g: Pascal's law and Archimedes principle). Bernoulli's Theorem.	Sep	8
			Equation of continuity; streamline and turbulent flow, Reynold's number. Euler's Equation. Memory Interfacing. Memory Map.	Sep	8
	CC7 Modern Physics	<i>Basic Quantum Mechanics</i>	de Broglie hypothesis. Electron double-slit experiment. Compton effect, Davisson-Germer experiment, Heisenberg's uncertainty principle (statement) with illustrations. Concept of wave function as describing the dynamical state of a single particle.	Feb	4
			(a) Quantum measurements: Deterministic vs probabilistic view points. States as normalised vectors (normalised wave functions). Dynamical variables as linear Hermitian operators (position, momentum, angular momentum, and energy as examples).	Mar	9
		Angular Momentum	Application to one dimensional systems: Boundary conditions on wave functions.	April	4

			Particle in an infinitely rigid box: energy eigenvalues and eigenfunctions, normalization. Quantum dot. Quantum mechanical tunnelling across a step potential & rectangular potential barrier, $\alpha$ -decay as an example.		
			d) Simultaneous measurements: Compatible and incompatible observables and their relation to commutativity. Heisenberg's uncertainty relation for a pair of incompatible observables. Illustration of the ideas using $[x_i, p_j]$ and $[L_i, L_j]$ .	May	8
	CC14: Solid State Physics	Crystal Structure	Crystalline and amorphous solids, translational symmetry. Elementary ideas about crystal structure, lattice and bases, unit cell, reciprocal lattice, fundamental types of lattices, Miller indices, lattice planes, simple cubic, f.c.c. and b.c.c. lattices. Laue and Bragg equations. Determination of crystal structure with X-rays	Feb	6
		Magnetic properties of materials	Dia, para and ferro-magnetic properties of solids. Langevin's theory of diamagnetism and paramagnetism. Quantum theory of paramagnetism, Curie's law. Ferromagnetism : spontaneous magnetization and domain structure; temperature dependence of spontaneous magnetisation; Curie-Weiss law, explanation of hysteresis.	March	8
		Superconductivity	Introduction (Kamerlingh-Onnes experiment), effect of magnetic field, Type-I and type-II superconductors, Isotope effect. Meissner effect. Heat capacity. Energy gap. Ideas about High-Tc superconductors.	April	8
DSE	DSE A2: Nanomaterials		Length scales in physics, Nanostructures: 1D, 2D and 3D nanostructures (nanodots, thin films, nanowires, nanorods), Band structure and density of states of materials at nanoscale, Size Effects in nano systems, Quantum confinement: Applications of Schrodinger equation: Infinite potential well, potential step, potential box, quantum confinement of carriers in 3D, 2D, 1D nanostructures and its consequences.	Feb	3
			(a) Top down and Bottom up approach, Photolithography. Ball milling. Gas phase condensation. (b) Vacuum deposition • Physical vapor deposition (PVD) • Thermal evaporation – Electron beam evaporation – Pulsed Laser	Mar	4

			deposition		
			<ul style="list-style-type: none"> <li>• Chemical vapor deposition (CVD)</li> <li>• MBE growth of quantum dots (c)</li> </ul> Chemical Synthesis <ul style="list-style-type: none"> <li>• Chemical bath deposition</li> <li>• Electro deposition</li> <li>• Spray pyrolysis</li> <li>• Hydrothermal synthesis</li> <li>• Sol-Gel synthesis</li> </ul>	April	4
			(a) X-Ray Diffraction. Optical Microscopy. Scanning Electron Microscopy (SEM). Transmission Electron Microscopy (TEM). Atomic Force Microscopy (AFM). Scanning Tunneling Microscopy (STM).	May	4
			(a) Applications of nanoparticles, quantum dots, nanowires and thin films for photonic devices (LED, solar cells). Single electron transfer devices (no derivation). CNT based transistors. Nanomaterial Devices: Quantum dots heterostructure lasers, optical switching and optical data storage. Magnetic quantum well; magnetic dots -magnetic data storage. Micro Electromechanical Systems (MEMS), Nano Electromechanical Systems (NEMS).	June	4

## Teaching Plan

**Department:** Physics

**Session: 2022-23**

**Name of the teacher: Dr. Kalipada Das**

Course type (CC/ GE/SEC/ AECC/D SE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC2: Mechanics	Gravitation and Central Force Motion	(a) Central Force. Reduction of the two body central force problem to a one body problem. Setting up the E.O.M. in plane polar coordinates.	Sep	4
		Gravitation and Central Force Motion	(b) Differential equation for the path. Motion under an Inverse square force. Newton's Law of Gravitation. Inertial and gravitational mass. Kepler's Laws. Satellite in circular orbit and applications. Weightlessness.	Sep	4
		Gravitation and Central Force Motion	(c) Gravitational potential energy. Potential and field due to spherical shell and solid sphere.	Oct	4
	CC7 Modern Physics	<i>Basic Quantum Mechanics</i>	de Broglie hypothesis. Electron double-slit experiment. Compton effect, Davisson-Germer experiment, Heisenberg's uncertainty principle (statement) with illustrations. Concept of wave function as describing the dynamical state of a single particle.	Aug	4
		Angular Momentum	Application to one dimensional systems: Boundary conditions on wave functions. Particle in an infinitely rigid box: energy eigenvalues and eigenfunctions, normalization. Quantum dot. Quantum mechanical tunnelling across a step potential & rectangular potential barrier, $\alpha$ -decay as an example.	Nov	6
			d) Simultaneous measurements: Compatible and incompatible observables and their relation to commutativity. Heisenberg's uncertainty relation for a pair of incompatible observables. Illustration of the ideas using $[x_i, p_j]$ and $[L_i, L_j]$ .	Nov	10
	CC14: Solid State Physics	Crystal Structure	Crystalline and amorphous solids, translational symmetry. Elementary ideas about crystal structure, lattice and bases, unit cell, reciprocal lattice, fundamental types of lattices, Miller indices, lattice	Mar	4

			planes, simple cubic, f.c.c. and b.c.c. lattices. Laue and Bragg equations. Determination of crystal structure with X-rays		
		Magnetic properties of materials	Dia, para and ferro-magnetic properties of solids. Langevin's theory of diamagnetism and paramagnetism. Quantum theory of paramagnetism, Curie's law. Ferromagnetism : spontaneous magnetization and domain structure; temperature dependence of spontaneous magnetisation; Curie-Weiss law, explanation of hysteresis.	Feb	4
DSE	DSE A2: Nanomaterials DSE A2: Nanomaterials		Length scales in physics, Nanostructures: 1D, 2D and 3D nanostructures (nanodots, thin films, nanowires, nanorods), Band structure and density of states of materials at nanoscale, Size Effects in nano systems, Quantum confinement: Applications of Schrodinger equation: Infinite potential well, potential step, potential box, quantum confinement of carriers in 3D, 2D, 1D nanostructures and its consequences.	Aug	4
			(a) Top down and Bottom up approach, Photolithography. Ball milling. Gas phase condensation. (b) Vacuum deposition • Physical vapor deposition (PVD) • Thermal evaporation – Electron beam evaporation – Pulsed Laser deposition	Sep	8
			<ul style="list-style-type: none"> <li>• Chemical vapor deposition (CVD)</li> <li>• MBE growth of quantum dots (c)</li> </ul> Chemical Synthesis <ul style="list-style-type: none"> <li>• Chemical bath deposition</li> <li>• Electro deposition</li> <li>• Spray pyrolysis</li> <li>• Hydrothermal synthesis</li> <li>• Sol-Gel synthesis</li> </ul>	Nov	4
			(a) X-Ray Diffraction. Optical Microscopy. Scanning Electron Microscopy (SEM). Transmission Electron Microscopy (TEM). Atomic Force Microscopy (AFM). Scanning Tunneling Microscopy (STM).	Nov	4
			(a) Applications of nanoparticles, quantum dots, nanowires and thin films for photonic devices (LED, solar cells). Single electron transfer devices (no	Dec	6

			derivation). CNT based transistors. Nanomaterial Devices: Quantum dots heterostructure lasers, optical switching and optical data storage. Magnetic quantum well; magnetic dots -magnetic data storage. Micro Electromechanical Systems (MEMS), Nano Electromechanical Systems (NEMS).		
			Length scales in physics, Nanostructures: 1D, 2D and 3D nanostructures (nanodots, thin films, nanowires, nanorods), Band structure and density of states of materials at nanoscale, Size Effects in nano systems, Quantum confinement: Applications of Schrodinger equation: Infinite potential well, potential step, potential box, quantum confinement of carriers in 3D, 2D, 1D nanostructures and its consequences.	Nov	1
			(a) Top down and Bottom up approach, Photolithography. Ball milling. Gas phase condensation. (b) Vacuum deposition • Physical vapor deposition (PVD) • Thermal evaporation – Electron beam evaporation – Pulsed Laser deposition	Nov	2
			<ul style="list-style-type: none"> <li>• Chemical vapor deposition (CVD)</li> <li>• MBE growth of quantum dots (c)</li> </ul> Chemical Synthesis <ul style="list-style-type: none"> <li>• Chemical bath deposition</li> <li>• Electro deposition</li> <li>• Spray pyrolysis</li> <li>• Hydrothermal synthesis</li> <li>• Sol-Gel synthesis</li> </ul>	Nov	1

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Sharmistha Sadhukhan**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	VI – 3.3	Group Influence (Practical); Group Cohesiveness (Practical)	Problem solving; Sociometry	July- August	10
	VI – 3.4	Reaction Time (Practical)	Simple and complex reaction time	Septemb er	8
	VIII – 3.7	Intelligence (Practical)	Koh's Block Design, Cube Construction; Terman-Merrill	Novemb er- Decemb er	14
Part III Gen	IVB – 3.2	Personality(P ractical); Intelligence (Practical); Interest (Practical); Aptitude (Practical)	EPQ-R; Terman- Merrill; GZII; DAT	August- Decemb er	16
Part II Hons	III – 2.1	NPC	Properties and applications	August	8
	III – 2.2	Experimental Method and Field Study; Design of Experiments	Concept and applications; Types with detailed discussion	Sptembe r- Novemb er	10
	IV B – 2.4	Memory (Practical)	Whole vs. part learning, Spaced vs. unspaced learning; Retroactive and proactive inhibition	Novemb er- January	16
Semester I Hons	CC1	Memory (Practical) ; Perception (Practical)	Spaced vs. unspaced learning; Perceptual reversibility	July- August	10



	CC2	Graphical Representati on (Practical)	Polygon, smoothed polygon, histogram, pie chart and ogive	Septemb er- Novemb er	8
Semester II Hons	CC3	The Organization of Nervous System; Reaction Time (Practical)	Struture and functions of CNS and PNS; Simple, choice and discriminative reaction time	January- March	14
	CC4	Intelligence (Practical)	Terman-Merrill	March- April	10

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Dr. Piyaly De**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Health Psychology	Nature, scope, biopsychosocial model	July	4
	VI – 3.3	Prejudice (Practical)	Ethnic prejudice	July	6
	VI – 3.4	Attitude (Practical)	Scale construction	August- Novemb er	16
	VII – 3.5	Industrial Psychology; Personnel Selection	Introduction, concept; Job analysis	August- Septemb er	10
	VIII – 3.7	Interest and Aptitude (Practical)	GZII and DAT	Decemb er	8
Part II Hons	III – 2.1	Statistical Inference	Concept and steps	August- Septemb er	10
	IV A – 2.3	Prenatal Development	Stages and hazards	Novemb er- Decemb er	12
Part II Gen	II B – 2.2	Frequency Distribution	Polygon, histogram, bar	Septemb er-	18

		and Graphical Representation (Practical) ; Measures of Central Tendency(Practical); Attention(Practical); Intelligence (Practical)	diagram and pie chart; Mean, median, mode; Span and fluctuation of attention; SPM	January	
Semester I Hons	CC2	Measures of Central Tendency; Measures of Variability; Measures of Central Tendency (Practical); Measures of Variability (Practical)	Mean, median, mode; Range, AD, SD, QD and variance; Mean, median, mode; Range, AD, SD, QD and variance	July-November	18
Semester I GE	GE1	Motivation and Emotion	Motives and emotions	August-November	8
Semester II Hons	CC3	Arousal (Practical)	Emotional expression	January-March	8
	CC4	Intelligence	Concept, theories and factors	March-April	8
Semester II GE	GE2	Interpersonal Processes	Interpersonal attraction, prosocial behaviour, aggression	February-April	8

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Sharmila Mukherjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.1	Social	Social organization,	July-	18

		Psychology; Attitude; Group Psychology; Stereotype, Prejudice and Discrimination	interaction, person perception, attribution; Definition, formation, theories, change and measurement of attitude; Definition, classification, structure and functions of group, conformity, compliance, leadership; Concept, origin, measurement, reduction of prejudice	November	
	VII – 3.6	Concept of normality	Normality, abnormality, psychopathology	December	4
Part II Hons	III - 2.2	Concept of Assessment	Interest, aptitude, intelligence and personality	August- November	8
Part II Gen	II A – 2.1	Social Psychology; Industrial Psychology	Introduction of social psychology, social interaction, group, social issues; introduction to industrial psychology, work environment	September- January	16
Semester I Hons	CC1	Introduction to Psychology	Definition, perspective and behaviour, methods and subfields, psychology in modern India	July- August	8
Semester I GE	GE1	Memory (Practical)	Whole vs. part learning	August- September	8
Semester II Hons	CC3	Introduction to Biopsychology	Methods and ethics	January- February	6
Semester II GE	GE2	Introduction of Social	History, scope, levels and	February- April	10

		Psychology; Group Cohesiveness (Practical)	approaches; Sociometry		
--	--	---	---------------------------	--	--

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Bidisha Mitra**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Stress and Health; Theories of Personality	Nature, types, causes, consequences, stress disorders and management; Psychodynamic and Behavioural	July- August	10
	VII – 3.6	Current classification of Mental Disorders	Concept of neurotic, psychotic and psychophysiological disorders	Septemb er	4
	VIII 3.8	Personality (Practical); Anxiety (Practical)	EPQ-R; STAI	Novemb er- Decemb er	8
Part III Gen	IVA - 3.1	Guidance and Counselling; Special Areas of Counselling; Counselling Process; Psychologica l Tests; Non- test Appraisal Techniques	Concept; Educational, vocational, family, marriage, old age and health; Steps, factors and methods; Types, characteristics and uses; Case study, cumulative record card	August- Decemb er	18
Semester I Hons	CC1	Learning and Motivation	Principles and applications of classical conditioning,	July- August	10

			operant conditioning, observational learning, perspectives on motivation		
	CC2	Correlation	Types and properties	September-November	8
Semester II Hons	CC3	The Functioning Brain	Structure and functions of neurone, neural conduction and synaptic transmission	January-February	8
	CC4	Enhancing Individual's potential	Self determination theory, enhancing cognitive potential, self regulation and self enhancement, fostering creativity	March-April	8

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Pousali Banerjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	VII – 3.5	Work Motivation; Working Conditions; Human Resource Development	Theories, job satisfaction and job involvement; Physical, temporal, psychological, accident prevention; Training	July-November	14
	VIII – 3.8	Ergograph (Practical)	Varying rhythm, rest pause, load	November-December	10
Semester I Hons	CC1	Memory	Models and theories, forgetting	July-August	8
	CC2	Introductory	Graphical	September	8

		Chapter	representation	er-November	
Semester I GE	GE1	Cognitive Processes	Perception, Learning and Memory	August-September	8
Semester II Hons	CC3	Neuroendocrine System	Structure, functions and abnormalities of major glands	January	6
	CC4	Personality; Personality (Practical)	Nature and types; 16PF	February-April	12
Semester II GE	GE2	Individual Level Processes	Attitude	February-April	8

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Prait Chakraborty**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Concept of Adjustment; Counselling	Factors, mental health and hygiene, meaning, purpose and steps	July-August	8
	VII – 3.6	Anxiety Disorders; Somatoform Disorders; Mood Disorders; Schizophrenia	Sign and symptoms	September-December	14
Semester I	CC1	Perception	Perceptual processes, perceptual organisation	July-August	8
	CC2	Standard Scores and NPC	Nature and properties	September-November	10
Semester I GE	GE1	Personality and Intelligence;	Nature and theories; SPM	August-November	16

		Intelligence (Practical)			
Semester II Hons	CC4	Indian Approach	Self and identity from Indian perspective	January-February	8
Semester II GE	GE2	Group Dynamics; Group influence (Practical)	Structure, functions and types of group, cooperation and conflict; Problem solving	February-April	10

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Dr. Poulami Bhar**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part II Hons	III – 2.1	Introduction to Correlation	Concept, types, computation and use	August-September	12
	III – 2.2	Development and Standardisation of Psychological Test	Item analysis, reliability, validity, norm	November-December	14
	IV B – 2.4	Determination of RL; Determination of DL	Constant and Gradation methods; Constant and gradation methods	November-January	20
Part II Gen	III B – 2.4	Measures of Variability (Practical); Correlation (Practical); Affective Value (Practical); Personality; Memory	AD, SD, QD; Rank difference; Method of impression; KNPI; Whole vs. part learning	September-January	20

## Teaching Plan

**Department: Psychology**

**Session: 2018-19**

**Name of the teacher: Dr. Rimjhim Ray**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Part II Hons	III -2.2	Research Problem and Hypothesis	Definition and criteria	August	6
	IV A – 2.3	Development ; Life Span Development	Definition and factors; Physical, speech, emotional, cognitive, moral, social and personality development	Sptembe r- Decemb er	20
Part II Gen	III A – 2.3	Psychopathol ogy; Determinants of Abnormal Behaviour; Methods of Studying Abnormal Behaviour; Mental disorders; Concept of Adjustment; Stress; Reactions to stress; Freudian Concept of Mind	Definition, concept, criteria; Biological, psychological, sociocultural; Case history, interview, psychometry, projective techniques; Schizophrenia, mood disorder, anxiety disorder; Mental health, hygiene, criteria and factors of adjustment; Concept, types, frustration and conflict; Task oriented and defense oriented reaction patterns; Topographical and structural approaches	Septemb er- January	20

## **Teaching Plan**

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Sharmistha Sadhukhan**



<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Part III Hons	VI – 3.3	Group Influence (Practical); Group Cohesiveness (Practical)	Problem solving; sociometry	July-August	10
	VI – 3.4	Reaction Time (Practical)	Simple and complex reaction time	September	8
	VIII – 3.7	Intelligence (Practical)	Koh's Block Design, Cube Construction; Terman-Merrill	November-December	14
Part III Gen	IVB – 3.2	Personality (Practical); Intelligence (Practical); Interest (Practical); Aptitude (Practical)	EPQ-R; Terman-Merrill; GZII; DAT	August-December	16
Semester I Hons	CC1	Memory (Practical) ; Perception (Practical)	Spaced vs. unspaced learning; Perceptual reversibility	July-August	10
	CC2	Graphical Representation (Practical)	Polygon, smoothed polygon, histogram, pie chart and ogive	September-November	8
Semester III Hons	CC7	Introduction; Social Interaction and Influence; Group Dynamics and Intergroup Relation; Group Cohesiveness (Practical)	Nature, scope and history of social psychology, relationship with sociology and anthropology; Interpersonal attraction, prosocial behaviour, aggression, social influence; Nature and consequences of belonging; Sociometry	July-November	22
Semester II Hons	CC3	The	Structure and	January-	14

		Organization of Nervous System; Reaction Time (Practical)	functions of CNS and PNS; Simple, choice and discriminative reaction time	March	
	CC4	Intelligence (Practical)	Terman-Merrill	March-April	10
Semester IV Hons	CC10	Applied Social Psychology II; Intervention and Evaluation; Scale Construction (Practical)	Work, health, legal system; Process and need of evaluation; Likert's Scale	January-April	20

## Teaching Plan

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Dr. Piyaly De**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Health Psychology	Nature, scope, biopsychosocial model	July	4
	VI – 3.3	Prejudice (Practical)	Ethnic prejudice	July	6
	VI – 3.4	Attitude (Practical)	Scale construction	August-November	16
	VII – 3.5	Industrial Psychology; Personnel Selection	Introduction, concept; Job analysis	August-September	10
	VIII – 3.7	Interest and Aptitude (Practical)	GZII and DAT	December	8
Semester I Hons	CC2	Measures of Central Tendency; Measures of	Mean, median, mode; Range, AD, SD, QD and variance; Mean,	July-November	18

		Variability; Measures of Central Tendency (Practical); Measures of Variability (Practical)	median, mode; Range, AD, SD, QD and variance		
Semester I GE	GE1	Motivation and Emotion	Motives and emotions	August-November	8
Semester III Hons	CC5	Semi Projective Technique (Practical)	Word Association Test	July-August	8
	CC6	Psychological Testing; Coping (Practical)	Reliability, validity, norm and standardization; Coping checklist	July-September	20
	SEC1	Introduction; Applications	Behaviour modification and assessment; School, family, work, behavioural principles and procedure	November	6
Semester III GE	GE 3	Theoretical Perspectives	Biological, familial, cultural, behavioural, cognitive and psychodynamic	August-September	6
Semester II Hons	CC3	Arousal (Practical)	Emotional expression	January-March	8
	CC4	Intelligence	Concept, theories and factors	March-April	8
Semester II GE	GE2	Interpersonal Processes	Interpersonal attraction, prosocial behaviour, aggression	February-April	8
Semester IV Hons	CC9	Hypothesis Testing and Inference; Chi square (Practical)	t test and chi square; Computation	January-March	18
	SEC 2	Stress; Managing Stress	Introduction, nature and symptoms; Methods, problem	April	6

			focused and emotion focused approaches		
Semester IV GE	GE 4	Qualitative Methods; Central Tendency, Variability and Rank Difference	Difference between qualitative and quantitative methods, interview; Computation	February-April	10

## Teaching Plan

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Sharmila Mukherjee**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.1	Social Psychology; Attitude; Group Psychology; Stereotype, Prejudice and Discrimination	Social organization, interaction, person perception, attribution; Definition, formation, theories, change and measurement of attitude; Definition, classification, structure and functions of group, conformity, compliance, leadership; Concept, origin, measurement, reduction of prejudice	July-November	18
	VII – 3.6	Concept of normality	Normality, abnormality, psychopathology	December	4
Semester I Hons	CC1	Introduction to Psychology	Definition, perspective and behaviour, methods and subfields,	July-August	8

			psychology in modern India		
Semester I GE	GE1	Memory (Practical)	Whole vs. part learning	August-September	8
Semester II Hons	CC3	Introduction to Biopsychology	Methods and ethics	January-February	6
Semester II GE	GE2	Introduction of Social Psychology; Group Cohesiveness (Practical)	History, scope, levels and approaches; Sociometry	February-April	10

## Teaching Plan

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Bidisha Mitra**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Stress and Health; Theories of Personality	Nature, types, causes, consequences, stress disorders and management; Psychodynamic and Personality	July-August	10
	VII – 3.6	Current classification of Mental Disorders	Concept of neurotic, psychotic and psychophysiological disorders	September	4
	VIII 3.8	Personality (Practical); Anxiety (Practical)	EPQ-R; STAI	November-December	8
Part III Gen	IVA - 3.1	Guidance and Counselling; Special Areas of Counselling;	Concept; Educational, vocational, family, marriage, old age and health; Steps, factors and	August-December	18

		Counselling Process; Psychological Tests; Non-test Appraisal Techniques	methods; Types, characteristics and uses; Case study, cumulative record card		
Semester I Hons	CC1	Learning and Motivation	Principles and applications of classical conditioning, operant conditioning, observational learning, perspectives on motivation	July-August	10
	CC2	Correlation	Types and properties	September-November	8
Semester III Hons	CC5	Analytic Debate; Contemporary Developments	Clinical vs. phenomenological, Freud, Jung, humanistic and existential; Psychology of gender	July-August	10
	CC6	Methods of Data Collection	Case study, observation, interview, focused group discussion, survey, use of secondary data	September	6
	CC7	Group Influence (Practical)	Problem solving	November	8
Semester II Hons	CC3	The Functioning Brain	Structure and functions of neurone, neural conduction and synaptic transmission	January-February	8
	CC4	Enhancing Individual's potential	Self determination theory, enhancing cognitive potential, self regulation and	March-April	8

			self enhancement, fostering creativity		
Semester IV Hons	CC8	Clinical Picture of Etilogy; Clinical Picture of Etilogy;	Mood disorders, eating disorders; Schizophrenia, personality disorders, mental retardation, ADHD	January- Februar y	10
	CC9	Hypothesis Testing of Differences	ANOVA	March	6
	CC10	Ethnic Prejudice (Practical)	Bogardus' Social Distance Scale (Revision by Goode and Hatt)	April- May	8

## Teaching Plan

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Pousali Banerjee**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Part III Hons	VII – 3.5	Work Motivation; Working Conditions; Human Resource Development	Theories, job satisfaction and job involvement; Physical, temporal, psychological, accident prevention; Training	July- Septemb er	14
	VIII – 3.8	Ergograph (Practical)	Varying rhythm, rest pause, load	Novemb er- Decemb er	10
Semester I Hons	CC1	Memory	Models and theories, forgetting	July- August	8
	CC2	Introductory Chapter	Graphical representation	Septemb er- Novenb er	8
Semester I GE	GE1	Cognitive Processes	Perception, Learning and Memory	August- Septemb er	8
Semester III	CC6	Basics of	Definition, goals,	July-	16

Hons		Research in Psychology and Research Traditions; Sampling; Semi Projective technique (Practical)	paradigms, principles, ethics, qualitative and quantitative orientation, formulating a problem, research hypotheses; Probability and non-probability sampling methods; Sentence Completion Test	September	
	SEC 1	Learning Techniques of Behavioural Modification	Classical and operant conditioning; Token economy, contingencies, shaping, Premack principle	November	8
Semester III GE	GE3	Basic Concepts; Anxiety (Practical)	Definition and criteria of abnormality, classification, diathesis-stress model; STAI	August-November	10
Semester II Hons	CC3	Neuroendocrine System	Structure, functions and abnormalities of major glands	January	6
	CC4	Personality; Personality (Practical)	Nature and types; 16PF	February-april	12
	GE2	Individual Level Processes	Attitude	February-April	8
Semester IV Hons	CC9	Introduction to Inferential Statistics and hypothesis testing; Hypothesis testing of Dependent Means and Confidence Interval; t test	t test and hypothesis testing; Testing of correlated means; Computation	January-March	14



		(Practical)			
	SEC2	Sources of Stress; Stress and Health	Environmental, social, physiological and psychological; Effect of stress on health, eustress	April	6
Semester IV GE	GE4	Introduction; Personality (Practical)	Scales of measurement, graphical representation of data; KNPI	February-April	8

## Teaching Plan

**Department: Psychology**

**Session: 2019-20**

**Name of the teacher: Prait Chakraborty**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Part III Hons	V – 3.2	Concept of Adjustment; Counselling	Factors, mental health and hygiene, meaning, purpose and steps	July-August	8
	VII – 3.6	Anxiety Disorders; Somatoform Disorders; Mood Disorders; Scizophrenia	Sign and symptoms	September-December	14
Semester I	CC1	Perception	Perceptual processes, perceptual organisation	July-August	8
	CC2	Standard Scores and NPC	Nature and properties	September-November	10
Semester I GE	GE1	Personality and Intelligence; Intelligence (Practical)	Nature and theories; SPM	August-November	16
Semester III	CC5	Understandin	Indian and western	July-	16

Hons		g of Psyche; Positivist Orientation; Gender identity (Practical)	perspectives, Behaviourism, neo behaviouristic traditions; cognitive evolution; IGRIS	September	
	CC7	Understanding and Evaluating the Social World	Social cognition, perception, attitudes and attitude change	November	8
Semester III GE	GE3	Clinical Features	GAD, OCD, major depression, bipolar I disorder and schizophrenia	August-September	8
Semester II Hons	CC4	Indian Approach	Self and identity from Indian perspective, Nyay, Vedanta and Budhdhist view, components of identity, Triguna and Sankhya perspective	January-February	8
Semester II GE	GE2	Group Dynamics; Group Influence (Practical)	Structure, function and types of group, cooperation and conflict; Problem solving	February-April	10
Semester IV	CC8	Understanding Abnormality; Clinical Pictures and Etiology of Disorders; Personality (Practical)	Normality and abnormality, classification, nature of clinical assessment; GAD, OCD, somatoform disorders; KIEI	January-March	14
	CC10	Applying Social Psychology II	Environment and diversity	April	6
Semester IV GE	GE4	Psychological Testing	Reliability, validity, norm, standardisation	February-April	8

## Teaching Plan

**Department: Psychology**

**Session: 2020-21**

**Name of the teacher: Sharmistha Sadhukhan**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Memory (Practical) ; Perception (Practical)	Spaced vs. unspaced learning; Perceptual reversibility	July- August	10
	CC2	Graphical Representati on (Practical)	Polygon, smoothed polygon, histogram, pie chart and ogive	Septemb er- Novemb er	8
Semester III Hons	CC7	Introduction; Social Interaction and Influence; Group Dynamics and Intergroup Relation; Group Cohesiveness (Practical)	Nature, scope and history of social psychology, relationship with sociology and anthropology; Interpersonal attraction, prosocial behaviour, aggression, social influence; Nature and consequences of belonging; Sociometry	July- Novemb er	22
Semester V Hons	CC12	Domains of Human Development	Cognitive, language, emotional, moral, personality	July- Septemb er	16
	DSE2	Health Well Being	Happiness, life satisfaction, resilience, optimism and hope	Novemb er	6
Semester II Hons	CC3	The Organization of Nervous System; Reaction Time (Practical)	Structure and functions of CNS and PNS; Simple, choice and discriminative reaction time	January- March	14
	CC4	Intelligence (Practical)	Terman-Merrill	March- April	10

Semester II GE	GE2	Introduction of Social Psychology; Group Cohesiveness (Practical)	History, scope, levels and approaches; Sociometry	February-April	10
Semester IV Hons	CC10	Applied Social Psychology II; Intervention and Evaluation; Scale Construction (Practical)	Work, health, legal system; Process and need of evaluation; Likert's Scale	January-April	20
Semester VI Hons	CC13	Leadership; Achievement Motivation (Practical)	Trait, behavioural, contingency theories, contemporary issues; Deo Mohan Scale	January-February	12
	DSE3	Organizational Change and Development	Concept, model and technique	March	8
	DSE4	Intervention	Community Development and Empowerment	April	8

## Teaching Plan

**Department: Psychology**

**Session: 2020-21**

**Name of the teacher: Dr. Piyaly De**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester I Hons	CC2	Measures of Central Tendency; Measures of Variability; Measures of Central Tendency	Mean, median, mode; Range, AD, SD, QD and variance; Mean, median, mode; Range, AD, SD, QD and variance	July-November	18

		(Practical); Measures of Variability (Practical)			
Semester I GE	GE1	Motivation and Emotion	Motives and emotions	August- Novemb er	8
Semester III Hons	CC5	Semi Projective Technique (Practical)	Word Association Test	July- August	8
	CC6	Psychologica l Testing; Coping (Practical)	Reliability, validity, norm and standardization; Coping checklist	July- Septemb er	20
	SEC1	Introduction; Applications	Behaviour modification and assessment; School, family, work, behavioural principles and procedure	Novemb er	6
Semester III GE	GE 3	Theoretical Perspectives	Biological, familial, cultural, behavioural, cognitive and psychodynamic	August- Septemb er	6
Semester V Hons	CC11	Psychiatric Morbidity (Practical)	General Health Questionnaire	July	4
	CC12	Stages of Life Span Development	Pre natal, birth and infancy, childhood, adolescence, adulthood	July- Septemb er	12
	DSE2	Health Enhancing Behaviour	Exercise, nutrition, safety, pain, stress management	Novemb er	6
Semester II Hons	CC3	Arousal (Practical)	Emotional expression	January- March	8
	CC4	Intelligence	Concept, theories and factors	March- April	8
Semester II GE	GE2	Interpersonal Processes	Interpersonal attraction, prosocial behaviour, aggression	Februar y-April	8
Semester IV Hons	CC9	Hypothesis Testing and	t test and chi square;	January- March	18

		Inference; Chi square (Practical)	Computation		
	SEC 2	Stress; Managing Stress	Introduction, nature and symptoms; Methods, problem focused and emotion focused approaches	April	6
Semester IV GE	GE 4	Qualitative Methods; Central Tendency, Variability and Rank Difference	Difference between qualitative and quantitative methods, interview; Computation	February-April	10
Semester VI Hons	CC13	Dynamics of Organizational Behaviour	Organizational culture, power, politics, influence, sexual harassment, positive organizational behaviour	January	8
	CC14	Interest	GZII	February	8
	DSE3	International Human Resource Management	Globalization, role of culture in IHRM, cultural differences, policies and practices in the multinational enterprise	March	6
	DSE4	Health Promotion	Health promotion, community programme for child mental health, physically challenged and elderly	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2020-21**

**Name of the teacher: Bidisha Mitra**

Course type (CC/	Paper	Unit name	Sub-unit name	Month	No. of classes
---------------------	-------	-----------	---------------	-------	-------------------

<b>GE/SEC/AECC/ DSE)</b>					
Semester I Hons	CC1	Learning and Motivation	Principles and applications of classical conditioning, operant conditioning, observational learning, perspectives on motivation	July-August	10
	CC2	Correlation	Types and properties	September-November	8
Semester III Hons	CC5	Analytic Debate; Contemporary Developments	Clinical vs. phenomenological, Freud, Jung, humanistic and existential; Psychology of gender	July-August	10
	CC6	Methods of Data Collection	Case study, observation, interview, focused group discussion, survey, use of secondary data	September	6
	CC7	Group Influence (Practical)	Problem solving	November	8
Semester V Hons	CC11	Biological Etiology – Explanations and Interventions for mood Disorders and Schizophrenia; Behavioural and Cognitive Explanations	Application of mood disorders and schizophrenia; Application of phobia and depression	July-August	12
	CC12	Parent Child	PCRS	September	6

		relationship (Practical)		er	
	DSE1	Introduction of Positive Psychology; Positive Emotional States and Processes	Eastern and Western perspective on positive psychology, character strengths and virtues; happiness and well being, positive affect and emotions, emotional intelligence and resilience	November	8
Semester II Hons	CC3	The Functioning Brain	Structure and functions of neurone, neural conduction and synaptic transmission	January-February	8
	CC4	Enhancing Individual's potential	Self determination theory, enhancing cognitive potential, self regulation and self enhancement, fostering creativity	March-April	8
Semester IV Hons	CC8	Clinical Picture of Etiology; Clinical Picture of Etiology	Mood disorders, eating disorders; Schizophrenia, personality disorders, mental retardation, ADHD	January-February	10
	CC9	Hypothesis Testing of Differences	ANOVA	March	6
	CC10	Ethnic Prejudice (Practical)	Bogardus' Social Distance Scale (Revision by Goode and Hatt)	April-May	8
Semester VI Hons	CC14	Techniques of Counselling; Counselling Applications	Psychoanalytic, humanistic, behavioural, cognitive, Indian; Child, family, career, crisis	January-March	14



			intervention		
	DSEIV	Family Environment (Practical)	FES	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2020-21**

**Name of the teacher: Pousali Banerjee**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Memory	Models and theories, forgetting	July-August	8
	CC2	Introductory Chapter	Graphical representation	September-November	8
Semester I GE	GE1	Cognitive Processes	Perception, Learning and Memory	August-September	8
Semester III Hons	CC6	Basics of Research in Psychology and Research Traditions; Sampling; Semi Projective technique (Practical)	Definition, goals, paradigms, principles, ethics, qualitative and quantitative orientation, formulating a problem, research hypotheses; Probability and non-probability sampling methods; Sentence Completion Test	July-September	16
	SEC 1	Learning Techniques of Behavioural Modification	Classical and operant conditioning; Token economy, contingencies, shaping, Premack principle	November	8
Semester III GE	GE3	Basic Concepts; Anxiety	Definition and criteria of abnormality,	August-November	10

		(Practical)	classification, diathesis-stress model; STAI		
Semester V	CC12	Introduction; Sociocultural context for Human Development	Concept of human development, themes and research designs; Family, peers, media and schooling, human development in Indian context	July-August	14
	DSE2	Introduction; Behaviour and Health; Hope (Practical)	Components of health, mind-body relationship, goals of health psychology, biopsychosocial model of health; Characteristics, barriers, theories and implication; Hope scale	September-November	14
Semester II Hons	CC3	Neuroendocrine System	Structure, functions and abnormalities of major glands	January	6
	CC4	Personality; Personality (Practical)	Nature and types; 16PF	February-April	12
	GE2	Individual Level Processes	Attitude	February-April	8
Semester IV Hons	CC9	Introduction to Inferential Statistics and hypothesis testing; Hypothesis testing of Dependent Means and Confidence Interval; t test (Practical)	t test and hypothesis testing; Testing of correlated means; Computation	January-March	14
	SEC2	Sources of Stress; Stress	Environmental, social,	April	6

		and Health	physiological and psychological; Effect of stress on health, eustress		
Semester IV GE	GE4	Introduction; Personality (Practical)	Scales of measurement, graphical representation of data; KNPI	February-April	8
Semester VI Hons	CC13	Introduction; Individual level processes	Historical antecedents, scientific management and human relations movement, organizational behaviour; Job satisfaction, organizational commitment, citizenship behaviour, theories of work motivation, goal setting and MBO; equity, expectancy, job characteristics model and redesign	January-February	12
	DSE2	Introduction to Human Resource Management ; Human Resource Practices; Organisational Role Stress (Practical)	HRM and HRD, concept and issues in HRM; Job analysis, recruitment and selection, training, performance evaluation; ORS	March-April	14

## Teaching Plan

**Department: Psychology**

**Session: 2020-21**

**Name of the teacher: Praitī Chakraborty**

Course type (CC/ GE/SEC/AECC/	Paper	Unit name	Sub-unit name	Month	No. of classes
-------------------------------------	-------	-----------	---------------	-------	-------------------

<b>DSE)</b>					
Semester I	CC1	Perception	Perceptual processes, perceptual organisation	July-August	8
	CC2	Standard Scores and NPC	Nature and properties	September-November	10
Semester I GE	GE1	Personality and Intelligence; Intelligence (Practical)	Nature and theories; SPM	August-November	16
Semester III Hons	CC5	Understanding of Psyche; Positivist Orientation; Gender identity (Practical)	Indian and western perspectives, Behaviourism, neo behaviouristic traditions; cognitive evolution; IGRIS	July-September	16
	CC7	Understanding and Evaluating the Social World	Social cognition, perception, attitudes and attitude change	November	8
Semester III GE	GE3	Clinical Features	GAD, OCD, major depression, bipolar I disorder and schizophrenia	August-September	8
Semester V Hons	CC11	Insight Oriented Explanations and Interventions ; Perspectives of Counselling	Conversion disorder, OCD, dissociative disorder, crisis intervention; Concept, steps, types	July-August	12
	DSE1	Positive Cognitive Steps and Processes; Applications; Well-Being (Practical)	Self efficacy, optimism, hope, wisdom, flow, mindfulness; Work, education, aging, health; PGI Well being	September-November	16
Semester II Hons	CC3	Introduction	Methods and ethics	January-	8

		to Biopsychology		February	
	CC4	Indian Approach	Self and identity from Indian perspective, Nyay, Vedanta and Buddhist view, components of identity, Triguna and Sankhya perspective	March-April	8
Semester II GE	GE2	Group Dynamics; Group Influence (Practical)	Structure, function and types of group, cooperation and conflict; Problem solving	February-April	10
Semester IV Hons	CC8	Understanding Abnormality; Clinical Pictures and Etiology of Disorders; Personality (Practical)	Normality and abnormality, classification, nature of clinical assessment; GAD, OCD, somatoform disorders; KIEI	January-March	14
	CC10	Applying Social Psychology II	Environment and diversity	April	6
Semester IV GE	GE4	Psychological Testing	Reliability, validity, norm, standardisation	February-April	8
Semester VI Hons	CC14	Introduction; Counselling Process	Nature and goals, professional ethics, the effective counselor, status of counselling psychology in India; Building counselling relationships, working in a counselling relationship and closing counselling relationships	January-March	14

	DSE4	Introduction	Definition, types and models of community psychology	April	6
--	------	--------------	--	-------	---

## Teaching Plan

**Department: Psychology**

**Session: 2021-22**

**Name of the teacher: Sharmistha Sadhukhan**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Memory (Practical) ; Perception (Practical)	Spaced vs. unspaced learning; Perceptual reversibility	July- August	10
	CC2	Graphical Representati on (Practical)	Polygon, smoothed polygon, histogram, pie chart and ogive	Septemb er- Novemb er	8
Semester III Hons	CC7	Introduction; Social Interaction and Influence; Group Dynamics and Intergroup Relation; Group Cohesiveness (Practical)	Nature, scope and history of social psychology, relationship with sociology and anthropology; Interpersonal attraction, prosocial behaviour, aggression, social influence; Nature and consequences of belonging; Sociometry	July- Novemb er	22
Semester V Hons	CC12	Domains of Human Development	Cognitive, language, emotional, moral, personality	July- Septemb er	16
	DSE2	Health Well Being	Happiness, life satisfaction, resilience, optimism and hope	Novemb er	6
Semester II Hons	CC3	The Organization	Structure and functions of CNS	January- March	14

		of Nervous System; Reaction Time (Practical)	and PNS; Simple, choice and discriminative reaction time		
	CC4	Intelligence (Practical)	Terman-Merrill	March-April	10
Semester II GE	GE2	Introduction of Social Psychology; Group Cohesiveness (Practical)	History, scope, levels and approaches; Sociometry	February-April	10
Semester IV Hons	CC10	Applied Social Psychology II; Intervention and Evaluation; Scale Construction (Practical)	Work, health, legal system; Process and need of evaluation; Likert's Scale	January-April	20
Semester VI Hons	CC13	Leadership; Achievement Motivation (Practical)	Trait, behavioural, contingency theories, contemporary issues; Deo Mohan Scale	January-February	12
	DSE3	Organizational Change and Development	Concept, model and technique	March	8
	DSE4	Intervention	Community Development and Empowerment	April	8

## Teaching Plan

**Department: Psychology**

**Session: 2021-22**

**Name of the teacher: Dr. Piyali De**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester I Hons	CC2	Measures of	Mean, median,	July-	18

		Central Tendency; Measures of Variability; Measures of Central Tendency (Practical); Measures of Variability (Practical)	mode; Range, AD, SD, QD and variance; Mean, median, mode; Range, AD, SD, QD and variance	November	
Semester I GE	GE1	Motivation and Emotion	Motives and emotions	August-November	8
Semester III Hons	CC5	Semi Projective Technique (Practical)	Word Association Test	July-August	8
	CC6	Psychological Testing; Coping (Practical)	Reliability, validity, norm and standardization; Coping checklist	July-September	20
	SEC1	Introduction; Applications	Behaviour modification and assessment; School, family, work, behavioural principles and procedure	November	6
Semester III GE	GE 3	Theoretical Perspectives	Biological, familial, cultural, behavioural, cognitive and psychodynamic	August-September	6
Semester V Hons	CC11	Psychiatric Morbidity (Practical)	General Health Questionnaire	July	4
	CC12	Stages of Life Span Development	Pre natal, birth and infancy, childhood, adolescence, adulthood	July-September	12
	DSE2	Health Enhancing Behaviour	Exercise, nutrition, safety, pain, stress management	November	6
Semester II Hons	CC3	Arousal (Practical)	Emotional expression	January-March	8
	CC4	Intelligence	Concept, theories	March-	8



			and factors	April	
Semester II GE	GE2	Interpersonal Processes	Interpersonal attraction, prosocial behaviour, aggression	February-April	8
Semester IV Hons	CC9	Hypothesis Testing and Inference; Chi square (Practical)	t test and chi square; Computation	January-March	18
	SEC 2	Stress; Managing Stress	Introduction, nature and symptoms; Methods, problem focused and emotion focused approaches	April	6
Semester IV GE	GE 4	Qualitative Methods; Central Tendency, Variability and Rank Difference	Difference between qualitative and quantitative methods, interview; Computation	February-April	10
Semester VI Hons	CC13	Dynamics of Organizational Behaviour	Organizational culture, power, politics, influence, sexual harassment, positive organizational behaviour	January	8
	CC14	Interest	GZII	February	8
	DSE3	International Human Resource Management	Globalization, role of culture in IHRM, cultural differences, policies and practices in the multinational enterprise	March	6
	DSE4	Health Promotion	Health promotion, community programme for child mental health, physically challenged and elderly	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2021-22**

**Name of the teacher: Bidisha Mitra**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester I Hons	CC1	Learning and Motivation	Principles and applications of classical conditioning, operant conditioning, observational learning, perspectives on motivation	July- August	10
	CC2	Correlation	Types and properties	Septemb er- Novemb er	8
Semester III Hons	CC5	Analytic Debate; Contemporar y Developments	Clinical vs. phenomenological, Freud, Jung, humanistic and existential; Psychology of gender	July- August	10
	CC6	Methods of Data Collection	Case study, observation, interview, focused group discussion, survey, use of secondary data	Septemb er	6
	CC7	Group Influence (Practical)	Problem solving	Novemb er	8
Semester V Hons	CC11	Biological Etiology – Explanations and Interventions for mood Disorders and	Application of mood disorders and schizophrenia; Application of phobia and depression	July- August	12

		Schizophrenia; Behavioural and Cognitive Explanations			
	CC12	Parent Child relationship (Practical)	PCRS	September	6
	DSE1	Introduction of Positive Psychology; Positive Emotional States and Processes	Eastern and Western perspective on positive psychology, character strengths and virtues; happiness and well being, positive affect and emotions, emotional intelligence and resilience	November	8
Semester II Hons	CC3	The Functioning Brain	Structure and functions of neurone, neural conduction and synaptic transmission	January- February	8
	CC4	Enhancing Individual's potential	Self determination theory, enhancing cognitive potential, self regulation and self enhancement, fostering creativity	March- April	8
Semester IV Hons	CC8	Clinical Picture of Etiology; Clinical Picture of Etiology	Mood disorders, eating disorders; Schizophrenia, personality disorders, mental retardation, ADHD	January- February	10
	CC9	Hypothesis Testing of Differences	ANOVA	March	6
	CC10	Ethnic Prejudice (Practical)	Bogardus' Social Distance Scale (Revision by	April- May	8

			Goode and Hatt)		
Semester VI Hons	CC14	Techniques of Counselling; Counselling Applications	Psychoanalytic, humanistic, behavioural, cognitive, Indian; Child, family, career, crisis intervention	January-March	14
	DSEIV	Family Environment	FES	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2021-22**

**Name of the teacher: Pousali Banerjee**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester I Hons	CC1	Memory	Models and theories, forgetting	July-August	8
	CC2	Introductory Chapter	Graphical representation	September-November	8
Semester I GE	GE1	Cognitive Processes	Perception, Learning and Memory	August-September	8
Semester III Hons	CC6	Basics of Research in Psychology and Research Traditions; Sampling; Semi Projective technique (Practical)	Definition, goals, paradigms, principles, ethics, qualitative and quantitative orientation, formulating a problem, research hypotheses; Probability and non-probability sampling methods; Sentence Completion Test	July-September	16
	SEC 1	Learning Techniques of Behavioural	Classical and operant conditioning; Token economy,	November	8

		Modification	contingencies, shaping, Premack principle		
Semester III GE	GE3	Basic Concepts; Anxiety (Practical)	Definition and criteria of abnormality, classification, diathesis-stress model; STAI	August-November	10
Semester V	CC12	Introduction; Sociocultural context for Human Development	Concept of human development, themes and research designs; Family, peers, media and schooling, human development in Indian context	July-August	14
	DSE2	Introduction; Behaviour and Health; Hope (Practical)	Components of health, mind-body relationship, goals of health psychology, biopsychosocial model of health; Characteristics, barriers, theories and implication; Hope scale	September-November	14
Semester II Hons	CC3	Neuroendocrine System	Structure, functions and abnormalities of major glands	January	6
	CC4	Personality; Personality (Practical)	Nature and types; 16PF	February-April	12
	GE2	Individual Level Processes	Attitude	February-April	8
Semester IV Hons	CC9	Introduction to Inferential Statistics and hypothesis testing; Hypothesis testing of Dependent Means and	t test and hypothesis testing; Testing of correlated means; Computation	January-March	14

		Confidence Interval; t test (Practical)			
	SEC2	Sources of Stress; Stress and Health	Environmental, social, physiological and psychological; Effect of stress on health, eustress	April	6
Semester IV GE	GE4	Introduction; Personality (Practical)	Scales of measurement, graphical representation of data; KNPI	February-April	8
Semester VI Hons	CC13	Introduction; Individual level processes	Historical antecedents, scientific management and human relations movement, organizational behaviour; Job satisfaction, organizational commitment, citizenship behaviour, theories of work motivation, goal setting and MBO; equity, expectancy, job characteristics model and redesign	January-February	12
	DSE2	Introduction to Human Resource Management ; Human Resource Practices; Organisational Role Stress (Practical)	HRM and HRD, concept and issues in HRM; Job analysis, recruitment and selection, training, performance evaluation; ORS	March-April	14

## Teaching Plan

**Department: Psychology**

**Session: 2021-22**

**Name of the teacher: Praiti Chakraborty**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I	CC1	Perception	Perceptual processes, perceptual organisation	July- August	8
	CC2	Standard Scores and NPC	Nature and properties	Septemb er- Novemb er	10
Semester I GE	GE1	Personality and Intelligence; Intelligence (Practical)	Nature and theories; SPM	August- Novemb er	16
Semester III Hons	CC5	Understandin g of Psyche; Positivist Orientation; Gender identity (Practical)	Indian and western perspectives, Behaviourism, neo behaviouristic traditions; cognitive evolution; IGRIS	July- Septemb er	16
	CC7	Understandin g and Evaluating the Social World	Social cognition, perception, attitudes and attitude change	Novemb er	8
Semester III GE	GE3	Clinical Features	GAD, OCD, major depression, bipolar I disorder and schizophrenia	August- Septemb er	8
Semester V Hons	CC11	Insight Oriented Explanations and Interventions ; Perspectives of Counselling	Conversion disorder, OCD, dissociative disorder, crisis intervention; Concept, steps, types	July- August	12
	DSE1	Positive Cognitive	Self efficacy, optimism, hope,	Septemb er-	16

		Steps and Processes; Applications; Well-Being (Practical)	wisdom, flow, mindfulness; Work, education, aging, health; PGI Well being	November	
Semester II Hons	CC3	Introduction to Biopsychology	Methods and ethics	January-February	8
	CC4	Indian Approach	Self and identity from Indian perspective, Nyay, Vedanta and Budhdhist view, components of identity, Triguna and Sankhya perspective	March-April	8
Semester II GE	GE2	Group Dynamics; Group Influence (Practical)	Structure, function and types of group, cooperation and conflict; Problem solving	February-April	10
Semester IV Hons	CC8	Understanding Abnormality; Clinical Pictures and Etiology of Disorders; Personality (Practical)	Normality and abnormality, classification, nature of clinical assessment; GAD, OCD, somatoform disorders; KIEI	January-March	14
	CC10	Applying Social Psychology II	Environment and diversity	April	6
Semester IV GE	GE4	Psychological Testing	Reliability, validity, norm, standardisation	February-April	8
Semester IV Hons	CC14	Introduction; Counselling Process	Nature and goals, professional ethics, the effective counselor, status of counselling psychology in India; Building counselling	January-March	14



			relationships, working in a counselling relationship and closing counselling relationships		
	DSE4	Introduction	Definition, types and models of community psychology	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2022-23**

**Name of the teacher: Sharmistha Sadhukhan**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Memory (Practical) ; Perception (Practical)	Spaced vs. unspaced learning; Perceptual reversibility	July-August	10
	CC2	Graphical Representation (Practical)	Polygon, smoothed polygon, histogram, pie chart and ogive	September-November	8
Semester III Hons	CC7	Introduction; Social Interaction and Influence; Group Dynamics and Intergroup Relation; Group Cohesiveness (Practical)	Nature, scope and history of social psychology, relationship with sociology and anthropology; Interpersonal attraction, prosocial behaviour, aggression, social influence; Nature and consequences of belonging; Sociometry	July-November	22
Semester V Hons	CC12	Domains of Human Development	Cognitive, language, emotional, moral, personality	July-September	16
	DSE2	Health Well	Happiness, life	November	6

		Being	satisfaction, resilience, optimism and hope	er	
Semester II Hons	CC3	The Organization of Nervous System; Reaction Time (Practical)	Structure and functions of CNS and PNS; Simple, choice and discriminative reaction time	January-March	14
	CC4	Intelligence (Practical)	Terman-Merrill	March-April	10
Semester II GE	GE2	Introduction of Social Psychology; Group Cohesiveness (Practical)	History, scope, levels and approaches; Sociometry	February-April	10
Semester IV Hons	CC10	Applied Social Psychology II; Intervention and Evaluation; Scale Construction (Practical)	Work, health, legal system; Process and need of evaluation; Likert's Scale	January-April	20
Semester VI Hons	CC13	Leadership; Achievement Motivation (Practical)	Trait, behavioural, contingency theories, contemporary issues; Deo Mohan Scale	January-February	12
	DSE3	Organizational Change and Development	Concept, model and technique	March	8
	DSE4	Intervention	Community Development and Empowerment	April	8

## Teaching Plan

**Department: Psychology**

**Session: 2022-23**

**Name of the teacher: Dr. Piyaly De**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC2	Measures of Central Tendency; Measures of Variability; Measures of Central Tendency (Practical); Measures of Variability (Practical)	Mean, median, mode; Range, AD, SD, QD and variance; Mean, median, mode; Range, AD, SD, QD and variance	July-November	18
Semester I GE	GE1	Motivation and Emotion	Motives and emotions	August-November	8
Semester III Hons	CC5	Semi Projective Technique (Practical)	Word Association Test	July-August	8
	CC6	Psychological Testing; Coping (Practical)	Reliability, validity, norm and standardization; Coping checklist	July-September	20
	SEC1	Introduction; Applications	Behaviour modification and assessment; School, family, work, behavioural principles and procedure	November	6
Semester III GE	GE 3	Theoretical Perspectives	Biological, familial, cultural, behavioural, cognitive and psychodynamic	August-September	6
Semester V Hons	CC11	Psychiatric Morbidity (Practical)	General Health Questionnaire	July	4
	CC12	Stages of Life Span Development	Pre natal, birth and infancy, childhood, adolescence, adulthood	July-September	12
	DSE2	Health	Exercise, nutrition,	November	6

		Enhancing Behaviour	safety, pain, stress management	er	
Semester II Hons	CC3	Arousal (Practical)	Emotional expression	January-March	8
	CC4	Intelligence	Concept, theories and factors	March-April	8
Semester II GE	GE2	Interpersonal Processes	Interpersonal attraction, prosocial behaviour, aggression	February-April	8
Semester IV Hons	CC9	Hypothesis Testing and Inference; Chi square (Practical)	t test and chi square; Computation	January-March	18
	SEC 2	Stress; Managing Stress	Introduction, nature and symptoms; Methods, problem focused and emotion focused approaches	April	6
Semester IV GE	GE 4	Qualitative Methods; Central Tendency, Variability and Rank Difference	Difference between qualitative and quantitative methods, interview; Computation	February-April	10
Semester VI Hons	CC13	Dynamics of Organizational Behaviour	Organizational culture, power, politics, influence, sexual harassment, positive organizational behaviour	January	8
	CC14	Interest	GZII	February	8
	DSE3	International Human Resource Management	Globalization, role of culture in IHRM, cultural differences, policies and practices in the multinational enterprise	March	6
	DSE4	Health Promotion	Health promotion, community programme for	April	6

			child mental health, physically challenged and elderly		
--	--	--	---	--	--

## Teaching Plan

**Department: Psychology**

**Session: 2022-23**

**Name of the teacher: Bidisha Mitra**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Learning and Motivation	Principles and applications of classical conditioning, operant conditioning, observational learning, perspectives on motivation	July- August	10
	CC2	Correlation	Types and properties	Septemb er- Novemb er	8
Semester III Hons	CC5	Analytic Debate; Contemporar y Development s	Clinical vs. phenomenological, Freud, Jung, humanistic and existential; Psychology of gender	July- August	10
	CC6	Methods of Data Collection	Case study, observation, interview, focused group discussion, survey, use of secondary data	Septemb er	6
	CC7	Group Influence (Practical)	Problem solving	Novemb er	8
Semester V Hons	CC11	Biological Etiology –	Application of mood disorders and	July- August	12

		Explanations and Interventions for mood Disorders and Schizophrenia; Behavioural and Cognitive Explanations	schizophrenia; Application of phobia and depression		
	CC12	Parent Child relationship (Practical)	PCRS	September	6
	DSE1	Introduction of Positive Psychology; Positive Emotional States and Processes	Eastern and Western perspective on positive psychology, character strengths and virtues; happiness and well being, positive affect and emotions, emotional intelligence and resilience	November	8
Semester II Hons	CC3	The Functioning Brain	Structure and functions of neurone, neural conduction and synaptic transmission	January-February	8
	CC4	Enhancing Individual's potential	Self determination theory, enhancing cognitive potential, self regulation and self enhancement, fostering creativity	March-April	8
Semester IV Hons	CC8	Clinical Picture of Etiology; Clinical Picture of Etiology	Mood disorders, eating disorders; Schizophrenia, personality disorders, mental retardation, ADHD	January-February	10

	CC9	Hypothesis Testing of Differences	ANOVA	March	6
	CC10	Ethnic Prejudice (Practical)	Bogardus' Social Distance Scale (Revision by Goode and Hatt)	April-May	8
Semester VI Hons	CC14	Techniques of Counselling; Counselling Applications	Psychoanalytic, humanistic, behavioural, cognitive, Indian; Child, family, career, crisis intervention	January-March	14
	DSEIV	Family Environment	FES	April	6

## Teaching Plan

**Department: Psychology**

**Session: 2022-23**

**Name of the teacher: Pousali Banerjee**

<b>Course type (CC/ GE/SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
Semester I Hons	CC1	Memory	Models and theories, forgetting	July-August	8
	CC2	Introductory Chapter	Graphical representation	September-November	8
Semester I GE	GE1	Cognitive Processes	Perception, Learning and Memory	August-September	8
Semester III Hons	CC6	Basics of Research in Psychology and Research Traditions; Sampling; Semi Projective technique (Practical)	Definition, goals, paradigms, principles, ethics, qualitative and quantitative orientation, formulating a problem, research hypotheses; Probability and non-probability sampling methods;	July-September	16

			Sentence Completion Test		
	SEC 1	Learning Techniques of Behavioural Modification	Classical and operant conditioning; Token economy, contingencies, shaping, Premack principle	November	8
Semester III GE	GE3	Basic Concepts; Anxiety (Practical)	Definition and criteria of abnormality, classification, diathesis-stress model; STAI	August-November	10
Semester V	CC12	Introduction; Sociocultural context for Human Development	Concept of human development, themes and research designs; Family, peers, media and schooling, human development in Indian context	July-August	14
	DSE2	Introduction; Behaviour and Health; Hope (Practical)	Components of health, mind-body relationship, goals of health psychology, biopsychosocial model of health; Characteristics, barriers, theories and implication; Hope scale	September-November	14
Semester II Hons	CC3	Neuroendocrine System	Structure, functions and abnormalities of major glands	January	6
	CC4	Personality; Personality (Practical)	Nature and types; 16PF	February-April	12
	GE2	Individual Level Processes	Attitude	February-April	8
Semester IV Hons	CC9	Introduction to Inferential Statistics and	t test and hypothesis testing; Testing of	January-March	14



		hypothesis testing; Hypothesis testing of Dependent Means and Confidence Interval; t test (Practical)	correlated means; Computation		
	SEC2	Sources of Stress; Stress and Health	Environmental, social, physiological and psychological; Effect of stress on health, eustress	April	6
Semester IV GE	GE4	Introduction; Personality (Practical)	Scales of measurement, graphical representation of data; KNPI	February-April	8
Semester VI Hons	CC13	Introduction; Individual level processes	Historical antecedents, scientific management and human relations movement, organizational behaviour; Job satisfaction, organizational commitment, citizenship behaviour, theories of work motivation, goal setting and MBO; equity, expectancy, job characteristics model and redesign	January-February	12
	DSE2	Introduction to Human Resource Management ; Human Resource Practices;	HRM and HRD, concept and issues in HRM; Job analysis, recruitment and selection, training, performance	March-April	14

		Organisational Role Stress (Practical)	evaluation; ORS		
--	--	--	-----------------	--	--

## Teaching Plan

**Department: Psychology**

**Session: 2022-23**

**Name of the teacher: Praiti Chakraborty**

Course type (CC/ GE/SEC/AECC/ DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Semester I	CC1	Perception	Perceptual processes, perceptual organisation	July-August	8
	CC2	Standard Scores and NPC	Nature and properties	September-November	10
Semester I GE	GE1	Personality and Intelligence; Intelligence (Practical)	Nature and theories; SPM	August-November	16
Semester III Hons	CC5	Understanding of Psyche; Positivist Orientation; Gender identity (Practical)	Indian and western perspectives, Behaviourism, neo behaviouristic traditions; cognitive evolution; IGRIS	July-September	16
	CC7	Understanding and Evaluating the Social World	Social cognition, perception, attitudes and attitude change	November	8
Semester III GE	GE3	Clinical Features	GAD, OCD, major depression, bipolar I disorder and schizophrenia	August-September	8
Semester V Hons	CC11	Insight Oriented Explanations and Interventions	Conversion disorder, OCD, dissociative disorder, crisis intervention;	July-August	12

		; Perspectives of Counselling	Concept, steps, types		
	DSE1	Positive Cognitive Steps and Processes; Applications; Well-Being (Practical)	Self efficacy, optimism, hope, wisdom, flow, mindfulness; Work, education, aging, health; PGI Well being	September-November	16
Semester II Hons	CC3	Introduction to Biopsychology	Methods and ethics	January-February	8
	CC4	Indian Approach	Self and identity from Indian perspective, Nyay, Vedanta and Budhdhist view, components of identity, Triguna and Sankhya perspective	March-April	8
Semester II GE	GE2	Group Dynamics; Group Influence (Practical)	Structure, function and types of group, cooperation and conflict; Problem solving	February-April	10
Semester IV Hons	CC8	Understanding Abnormality; Clinical Pictures and Etiology of Disorders; Personality (Practical)	Normality and abnormality, classification, nature of clinical assessment; GAD, OCD, somatoform disorders; KIEI	January-March	14
	CC10	Applying Social Psychology II	Environment and diversity	April	6
Semester IV GE	GE4	Psychological Testing	Reliability, validity, norm, standardisation	February-April	8
Semester IV Hons	CC14	Introduction; Counselling	Nature and goals, professional ethics,	January-March	14

		Process	the effective counselor, status of counselling psychology in India; Building counselling relationships, working in a counselling relationship and closing counselling relationships		
	DSE4	Introduction	Definition, types and models of community psychology	April	6



## Teaching Plan

**Department:**

**Statistics**

**Session: 2022-23**

**Name of the teacher: Dr. Dipika Patra**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 2, Unit 3	August to January	30(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 1, Unit 3	August to January	28(Th) +7(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 2, Unit 3	March- July	30(Th) +10(P)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 1, Unit 2	March- July	30(Th) +10(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2021-22**

**Name of the teacher: Dipika Patra**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 2, Unit 3	August to January	30(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 1, Unit 3	August to January	28(Th) +7(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 2, Unit 3	March- July	30(Th) +10(P)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 1, Unit 2	March- July	30(Th) +10(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2020-21**

**Name of the teacher: Dipika Patra**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 2, Unit 3	August to January	30(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 1, Unit 3	August to January	28(Th) +7(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 2, Unit 3	March- July	30(Th) +10(P)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 1, Unit 2	March- July	30(Th) +10(P)



## Teaching Plan

**Department:**

**Statistics**

**Session: 2019-20**

**Name of the teacher: Dipika Patra**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 2, Unit 3	August to January	30(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 1, Unit 3	August to January	28(Th) +7(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 2, Unit 3	March- July	30(Th) +10(P)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 1, Unit 2	March- July	30(Th) +10(P)
	Part –III (1+1+1)	Sample survey methods, Design and Analysis of Experiment		August to April	40(Th) +10(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2018-19**

**Name of the teacher: Dipika Patra**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 2, Unit 3	August to January	30(Th) +10(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 2, Unit 3	March- July	30(Th) +10(P)
	Part-II (1+1+1) STSG	Sampling Distribution and Point Estimation, Economic Statistics, Time Series Analysis, Statistical Inference, Population Statistics and Statistical Quality control		August to June	80(Th) +20(P)
	Part –III (1+1+1)	Sample survey methods, Design and Analysis of Experiment		August to April	40(Th) +10(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2022-23**

**Name of the teacher: Biswadeb Banerjee**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 1	August to January	15(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 2	August to January	20(Th) +10(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 1	March- July	20(Th)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 3	March- July	15(Th) +5(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2021-22**

**Name of the teacher: Biswadeb Banerjee**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 1	August to January	15(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 2	August to January	20(Th) +10(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 1	March- July	20(Th)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 3	March- July	15(Th) +5(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2020-21**

**Name of the teacher: Biswadeb Banerjee**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 1	August to January	15(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 2	August to January	20(Th) +10(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 1	March- July	20(Th)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 3	March- July	15(Th) +5(P)

## Teaching Plan

**Department:**

**Statistics**

**Session: 2019-20**

**Name of the teacher: Biswadeb Banerjee**

Course type (CC/ GE/SEC/A ECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
GE	STS-A-GE-1-1-TH STS-A-GE-1-1-P	Descriptive Statistics	Unit 1	August to January	15(Th) +10(P)
	STS-A-GE-3-3-TH STS-A-GE-3-3-P	Introduction to Statistical Inference	Unit 2	August to January	20(Th) +10(P)
	STS-A-GE-2-2-TH STS-A-GE-2-2-P	Elementary Probability Theory	Unit 1	March- July	20(Th)
	STS-A-GE-4-4-TH STS-A-GE-4-4-P	Applications of Statistics	Unit 3	March- July	15(Th) +5(P)

### Teaching Plan

**Department: Zoology**

**Session:2018-19**

**Name of the teacher: Dr Ipsita Chanda**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Identification with reason & Systematic position	July- Dec	6
CC2	ZOOA-CC1-2-TH	Molecular Biology	Nucleic Acids		3
			DNA Replication		9
			Transcription		9
			Translation		9
			PostTranscriptional Modifications and Processing of Eukaryotic RNA		8
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Onychophora	Jan-Jun	2
			Mollusca		3
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Study of specimens Annelida, Arthropoda, Mollusca, Echinodermata		7
CC4	ZOOA-CC2-4-TH	Cell Biology	Cytoplasmic organelles II		5
			Cytoskeleton		5
Paper III (1+1+1 system, Part II, ZOOA)	Systematics, Evolutionary Biology & Animal Behaviour	Evolution and adaptation	RNA world & Origin of life	July-Dec	2
			Natural selection		2
			Hardy-Weinberg equilibrium		6
		Animal behaviour	Echolocation in bat		2
			Parental investment		4
			Bird migration		2
	Ecology, Biodiversity and Conservation	Ecology	Population attributes		2
			Population growth models		2

			Life history analysis		1
			Population interactions		5
			Animal's space and resource use		4
Paper IV (1+1+1 system, Part II, ZOOA)	Animal physiology and Biochemistry	Animal physiology	transport of O <sub>2</sub> and CO <sub>2</sub>		3
			Origin and propagation of nerve impulse		4
			Physiology of skeletal muscle contraction		3
		Biochemistry	Carbohydrate metabolism		5
			Structure and function of neuro-transmitter		2
	Practical	Ecological methods	estimation of pH in water and soil samples		2
			Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water		2
		Identification with reasons	Chordates		5
		Qualitative tests	for Carbohydrate		6
			Protein		6
			fat, uric acid and urea		6
Paper IV (1+1+1, Part III, ZOOG)	Applied Zoology	Sericulture	Sericulture	July-Dec	4
		Apiculture	Apiculture		4
		Evolutionary Biology	Systematics & taxonomy, Species, Chemical origin of life, Adaptation, Zoogeographical realm		20
	Laboratory course	Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water	Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water		4
		Pedigree	Pedigree analysis		6



		analysis			
		estimation of pH in water	estimation of pH in water		2

**Department: Zoology**

**Session:2019-2020**

**Name of the teacher: Dr Ipsita Chanda**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Identification with reason & Systematic position	July-Dec	6
CC2	ZOOA-CC1-2-TH	Molecular Biology	Nucleic Acids		3
			DNA Replication		9
			Transcription		9
			Translation		9
			PostTranscriptional Modifications and Processing of Eukaryotic RNA		8
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Onychophora	Jan-Jun	2
			Mollusca		3
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Study of specimens Annelida, Arthropoda, Mollusca, Echinodermata		7
CC4	ZOOA-CC2-4-TH	Cell Biology	Cytoplasmic organelles II		5
			Cytoskeleton		5
CC6	ZOOA-CC3-6-TH	Animal Physiology	Nervous System	July-Dec	5
			Muscular system		5
	ZOOA-CC3-6-P	Lab	Preparation of temporary mounts		6
			Study of permanent slides		4
CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Carbohydrates		8
			Oxidative Phosphorylation		2
	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4

CC8	ZOOA-CC4-8-TH	Comparative Anatomy of Vertebrates	Integumentary System	Jan-Jun	7
			Digestive System		4
	ZOOA-CC4-8-P	Lab	Comparative study of heart and brain		4
			Identification of skulls		2
CC9	ZOOA-CC4-9-TH	Animal Physiology	Physiology of Digestion		5
			Physiology of Respiration		5
	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
CC10	ZOOA-CC4-10-TH	Immunology	Overview of Immune System		3
			Innate and Adaptive Immunity		6
			Antigens		5
			Immunoglobulins		8
	ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs		2
			Histological study		4
PAPER 5, (1+1+1 system, Part III ZOOA)	Molecular Biology	Regulation of gene expression	Regulation of gene expression	July-Dec	6
		Epigenetic regulation of gene expression	Epigenetic regulation of gene expression		2
		Recombination	Recombination		4
	Immunology	Cells and organs associated with immune system	Cells and organs associated with immune system		4
		Antigens	Antigens		5
		Antibody	Antibody		5
PAPER 6, (1+1+1 system, Part III ZOOA)	Integration biology & homeostasis	Homeostasis of Ca <sup>++</sup> regulation and Blood glucose	Homeostasis of Ca <sup>++</sup> regulation and Blood glucose regulation		4

		regulation			
		Mechanism of hormone action	Mechanism of hormone action		6
		Biosynthesis, secretion, mode of action	Biosynthesis, secretion, mode of action		4
		Insect hormones	Insect hormones		2
	Animal biotechnology & applied zoology	Gene therapy	Gene therapy		4
PAPER 7, (1+1+1 system, Part III ZOOA)	Practical	Immunology	Determination of human blood group		2
			Histology of primary and secondary lymphoid organs		4
PAPER 8, (1+1+1 system, Part III ZOOA)	Practical	Instrumentation	Instrumentation		8
		Environmental audit	Environmental audit		6

**Department: Zoology**

**Session:2020-2021**

**Name of the teacher: Dr Ipsita Chanda**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Identification with reason & Systematic position	July-Dec	6
CC2	ZOOA-CC1-2-TH	Molecular Biology	Nucleic Acids		3
			DNA Replication		9
			Transcription		9
			Translation		9
			PostTranscriptional Modifications and Processing of Eukaryotic RNA		8
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Onychophora	Jan-Jun	2

			Mollusca		3
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Study of specimens Annelida, Arthropoda, Mollusca, Echinodermata		7
CC4	ZOOA-CC2-4-TH	Cell Biology	Cytoplasmic organelles II		5
			Cytoskeleton		5
CC6	ZOOA-CC3-6-TH	Animal Physiology	Nervous System	July-Dec	5
			Muscular system		5
	ZOOA-CC3-6-P	Lab	Preparation of temporary mounts		6
			Study of permanent slides		4
CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Carbohydrates		8
			Oxidative Phosphorylation		2
	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-TH	Comparative Anatomy of Vertebrates	Integumentary System	Jan-Jun	7
			Digestive System		4
	ZOOA-CC4-8-P	Lab	Comparative study of heart and brain		4
			Identification of skulls		2
CC9	ZOOA-CC4-9-TH	Animal Physiology	Physiology of Digestion		5
			Physiology of Respiration		5
	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
CC10	ZOOA-CC4-10-TH	Immunology	Overview of Immune System		3
			Innate and Adaptive Immunity		6
			Antigens		5
			Immunoglobulins		8
	ZOOA-CC4-10-	Lab	Demonstration of		2

	P		lymphoid organs		
			Histological study		4
CC11	ZOOA-CC5-11-TH	Ecology	Population	July-Dec	15
	ZOOA-CC5-11-P	Lab	Study of an aquatic ecosystem		16
CC12	ZOOA-CC5-12-TH	Principle of Genetics	Mutations		12
	ZooA-CC5-12-P	Lab	Identification of chromosomal aberration		6
			Pedigree analysis		8
CC13	ZOOA-CC6-13-TH	Developmental Biology	Late Embryonic Development	Jan-Jun	5
	ZooA-CC6-13-P	Lab	Study of whole mounts of developmental stages of chick embryo		2
			Study of different sections of placenta		2
CC14	ZOOA-CC6-14-TH	Evolutionary Biology	Population genetics:		8
	ZooA-CC6-14-P	Lab	Study of homology and analogy		2
			Phylogenetic trees		6
DSE A1	ZOOA-DSE(A)-6-1-TH	Animal Cell Biotechnology	Application in Health		4
	OOA-DSE(A)-6-1-P	Lab	Packing and sterilization		6
			Preparation of culture media		4
			Techniques		8
DSE B2	ZOOA-DSE(B)-6-2-P	Lab	Morphometric and meristic characters of fishes		4
			Study of crafts and gears used in Fisheries (		2
			Water quality criteria for Aquaculture		6

**Department: Zoology**

**Session:2021-2022**

**Name of the teacher: Dr Ipsita Chanda**

<b>Course type (CC/GE/SEC/AECC/DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Identification with reason & Systematic position	July-Dec	6

CC2	ZOOA-CC1-2-TH	Molecular Biology	Nucleic Acids		3
			DNA Replication		9
			Transcription		9
			Translation		9
			PostTranscriptional Modifications and Processing of Eukaryotic RNA		8
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Onychophora	Jan-Jun	2
			Mollusca		3
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Study of specimens Annelida, Arthropoda, Mollusca, Echinodermata		7
CC4	ZOOA-CC2-4-TH	Cell Biology	Cytoplasmic organelles II		5
			Cytoskeleton		5
CC6	ZOOA-CC3-6-TH	Animal Physiology	Nervous System	July-Dec	5
			Muscular system		5
	ZOOA-CC3-6-P	Lab	Preparation of temporary mounts		6
			Study of permanent slides		4
CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Carbohydrates		8
			Oxidative Phosphorylation		2
	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-TH	Comparative Anatomy of Vertebrates	Integumentary System	Jan-Jun	7
			Digestive System		4
	ZOOA-CC4-8-P	Lab	Comparative study of heart and brain		4
			Identification of skulls		2
CC9	ZOOA-CC4-9-TH	Animal Physiology	Physiology of Digestion		5
			Physiology of Respiration		5
	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin		4

			meter		
			Preparation of haemin crystals and haemochromogen crystals		8
CC10	ZOOA-CC4-10-TH	Immunology	Overview of Immune System		3
			Innate and Adaptive Immunity		6
			Antigens		5
			Immunoglobulins		8
	ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs		2
			Histological study		4
CC11	ZOOA-CC5-11-TH	Ecology	Population	July-Dec	15
	ZOOA-CC5-11-P	Lab	Study of an aquatic ecosystem		16
CC12	ZOOA-CC5-12-TH	Principle of Genetics	Mutations		12
	ZooA-CC5-12-P	Lab	Identification of chromosomal aberration		6
			Pedigree analysis		8
CC13	ZOOA-CC6-13-TH	Developmental Biology	Late Embryonic Development	Jan-Jun	5
	ZooA-CC6-13-P	Lab	Study of whole mounts of developmental stages of chick embryo		2
			Study of different sections of placenta		2
CC14	ZOOA-CC6-14-TH	Evolutionary Biology	Population genetics:		8
	ZooA-CC6-14-P	Lab	Study of homology and analogy		2
			Phylogenetic trees		6
DSE A1	ZOOA-DSE(A)-6-1-TH	Animal Cell Biotechnology	Application in Health		4
	OOA-DSE(A)-6-1-P	Lab	Packing and sterilization		6
			Preparation of culture media		4
			Techniques		8
DSE B2	ZOOA-DSE(B)-6-2-P	Lab	Morphometric and meristic characters of fishes		4
			Study of crafts and gears used in Fisheries (		2
			Water quality criteria for Aquaculture		6

Department: Zoology

Session:2022-2023

Name of the teacher: Dr Ipsita Chanda

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Identification with reason & Systematic position	July-Dec	6
CC2	ZOOA-CC1-2-TH	Molecular Biology	Nucleic Acids		3
			DNA Replication		9
			Transcription		9
			Translation		9
			PostTranscriptional Modifications and Processing of Eukaryotic RNA		8
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Onychophora	Jan-Jun	2
			Mollusca		3
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Study of specimens Annelida, Arthropoda, Mollusca, Echinodermata		7
CC4	ZOOA-CC2-4-TH	Cell Biology	Cytoplasmic organelles II		5
			Cytoskeleton		5
CC6	ZOOA-CC3-6-TH	Animal Physiology	Nervous System	July-Dec	5
			Muscular system		5
	ZOOA-CC3-6-P	Lab	Preparation of temporary mounts		6
			Study of permanent slides		4
CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Carbohydrates		8
			Oxidative Phosphorylation		2
	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-TH	Comparative Anatomy of Vertebrates	Integumentary System	Jan-Jun	7
			Digestive System		4



	ZOOA-CC4-8-P	Lab	Comparative study of heart and brain		4
			Identification of skulls		2
CC9	ZOOA-CC4-9-TH	Animal Physiology	Physiology of Digestion		5
			Physiology of Respiration		5
	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
CC10	ZOOA-CC4-10-TH	Immunology	Overview of Immune System		3
			Innate and Adaptive Immunity		6
			Antigens		5
			Immunoglobulins		8
	ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs		2
			Histological study		4
CC11	ZOOA-CC5-11-TH	Ecology	Population	July-Dec	15
	ZOOA-CC5-11-P	Lab	Study of an aquatic ecosystem		16
CC12	ZOOA-CC5-12-TH	Principle of Genetics	Mutations		12
	ZooA-CC5-12-P	Lab	Identification of chromosomal aberration		6
			Pedigree analysis		8
CC13	ZOOA-CC6-13-TH	Developmental Biology	Late Embryonic Development	Jan-Jun	5
	ZooA-CC6-13-P	Lab	Study of whole mounts of developmental stages of chick embryo		2
			Study of different sections of placenta		2
CC14	ZOOA-CC6-14-TH	Evolutionary Biology	Population genetics:		8
	ZooA-CC6-14-P	Lab	Study of homology and analogy		2
			Phylogenetic trees		6
DSE A1	ZOOA-DSE(A)-6-1-TH	Animal Cell Biotechnology	Application in Health		4
	OOA-DSE(A)-6-1-P	Lab	Packing and sterilization		6
			Preparation of culture		4

			media		
			Techniques		8
DSE B2	ZOOA-DSE(B)-6-2-P	Lab	Morphometric and meristic characters of fishes		4
			Study of crafts and gears used in Fisheries (		2
			Water quality criteria for Aquaculture		6

### TEACHING PLAN

**DEPARTMENT :** ZOOLOGY

**SESSION :** 2018-19

**NAME OF THE TEACHER :** SUPRIYO ACHARYA.

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOG-CC1-1-TH	ANIMAL DIVERSITY	PHYLUM ARTHROPODA, PHYLUM MOLLUSCA, PHYLUM ECHINODERMATA, PROTOCHORDATES, AGNATHA, PISCES, AMPHIBIA	ENTIRE.	SEPTEMBER-FEBRUARY	22
ZOOA-CC2-3-TH	NON-CHORDATES II-COELOMATES	ONYCHOPHORA, MOLLUSCA	ENTIRE	MARCH-AUGUST	14
ZOOA-CC2-3-P	NON-CHORDATES II-COELOMATES	ANATOMY STUDY	REPRODUCTIVE SYSTEM, MOUTH PARTS, SALIVARY APPARATUS OF COCKROACH.	MARCH-AUGUST	20
ZOOG-CC2-2-P	COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY	STUDY OF THE DIFFERENT TYPES OF PLACENTA DEVELOPMENTAL STAGES OF CHICK EMBRYO	HISTOLOGICAL SECTIONS PERMANENT MOUNT SLIDES SHOW	MARCH-AUGUST	20

**SESSION :** 2019-20

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOA-CC1-1-TH	NON-CHORDATE 1	BASICS OF ANIMAL CLASSIFICATION, PORIFERA.	ENTIRE	SEPTEMBER-FEBRUARY	13
ZOOA-CC3-5-TH	CHORDATA	PISCES, AMPHIBIA	ENTIRE	SEPTEMBER-FEBRUARY	20

ZOOA-CC3-7-TH	FUNDAMENTALS OF BIOCHEMISTRY	LIPIDS	STRUCTURE AND SIGNIFICANCE OF LIPIDS, LIPID METABOLISM	SEPTEMBER-FEBRUARY	17
ZOOA-SEC(A)-3-1-TH	APICULTURE	BIOLOGY OF BEES REARING OF BEES ENTREPRENEURSHIP IN APICULTURE	ALL	SEPTEMBER-FEBRUARY	17
ZOOG-CC1-1-TH	ANIMAL DIVERSITY	ECHINODERMATA,PROTOCHORDATES,AGNATHA,PISCES,AMPHIBIA,REPTILIA	ENTIRE	SEPTEMBER-FEBRUARY	20
ZOOG-CC1-1-P	ANIMAL DIVERSITY	IDENTIFICATION WITH REASONS OF THE FOLLOWING SPECIMENS KEY FOR IDENTIFICATION OF POISONOUS AND NON POISONOUS SNAKES ANATOMY STUDY	REPRODUCTIVE SYSTEM, MOUTH PARTS, SALIVARY APPARATUS OF COCKROACH.	SEPTEMBER-FEBRUARY	20
ZOOG-CC3-3-P	PHYSIOLOGY AND BIOCHEMISTRY	STUDY OF PERMANENT HISTOLOGICAL SECTIONS OF MAMMALIAN PITUITARY, THYROID PANCREAS , ADRENAL GLAND MAMMALIAN DUODENUM, LIVER, LUNG,KIDNEY	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-CC2-3-TH	NON-CHORDATES II-COELOMATES	ONYCHOPHORA , MOLLUSCA	ENTIRE	MARCH-AUGUST	14
ZOOA-CC2-3-P	NON-CHORDATES II-COELOMATES	ANATOMY STUDY	REPRODUCTIVE SYSTEM, MOUTH PARTS, SALIVARY APPARATUS OF COCKROACH.	MARCH-AUGUST	20
ZOOG-CC2-2-P	COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY	STUDY OF THE DIFFERENT TYPES OF PLACENTA DEVELOPMENTAL STAGES OF CHICK EMBRYO 24 HRS, 48 HRS, 72 HRS, 96 HRS	HISTOLOGICAL SECTIONS PERMANENT MOUNT	MARCH-AUGUST	20

			SLIDES SHOW		
ZOOA - SEC(B )-4-2- TH	MEDICAL DIAGNOSTIC TECHNIQUE	CLINICAL BIOCHEMISTRY CLINICAL MICROBIOLOGY	ALL	MARCH- AUGUST	20
ZOOG -CC4- 4-TH	GENETICS AND EVOLUTIONARY BIOLOGY	ORIGIN OF LIFE EVOLUTIONARY THEORIES PROCESS OF EVOLUTIONARY CHANGES SPECIATION	ALL	MARCH- AUGUST	20
ZOOG -CC4- 4-P	GENETICS AND EVOLUTIONARY BIOLOGY	VERIFICATION OF MENDELIAN RATIO USING CHI-SQUARE TEST IDENTIFICATION OF HUMAN ANEUPLOIDY USING PHOTOGRAPHS OF KARYOTYPE PHYLOGENY OF HORSE WITH DIAGRAMS OF LIMBS AND SKULL STUDY AND IDENTIFICATION OF DARWINIAN FINCHES BY PHOTOGRAPH.	ALL	MARCH- AUGUST	20
AECC 2	ENVIRONMENT AL STUDIES	INTRODUCTION TO ENVIRONMENTAL STUDIES NATURAL RESOURCES BIODIVERSITY AND CONSERVATION POLLUTION ENVIRONMENTAL POLICIES AND PRACTICES HUMAN COMMUNITIES AND THE ENVIRONMENT	ALL	MARCH- AUGUST	25

**SESSION : 2020-21**

<b>COURSE TYPE</b>	<b>PAPER</b>	<b>UNIT NAME</b>	<b>SUB-UNIT NAME</b>	<b>MONT H</b>	<b>NO. OF CLAS SES</b>
ZOOA-CC1- 1-TH	NON-CHORDATE 1	BASICS OF ANIMAL CLASSIFICATION, PORIFERA.	ENTIRE	SEPTEMBER- FEBRUARY	13
ZOOA-CC3- 5-TH	CHORDATA	PISCES, AMPHIBIA	ENTIRE	SEPTEMBER- FEBRUARY	20
ZOOA-CC3- 7-TH	FUNDAMENTAL S OF BIOCHEMISTRY	LIPIDS	STRUCTURE AND SIGNIFICANCE OF LIPIDS, LIPID METABOLI	SEPTEMBER- FEBRUARY	17

			SM		
ZOOA-SEC(A)-3-1-TH	APICULTURE	BIOLOGY OF BEES REARING OF BEES ENTREPRENEURSHIP IN APICULTURE	ALL	SEPTEMBER-FEBRUARY	17
ZOOG-CC1-1-TH	ANIMAL DIVERSITY	ECHINODERMATA,PROTOCHORDATES,AGNATHA,PISCES,AMPHIBIA,REPTILIA	ENTIRE	SEPTEMBER-FEBRUARY	20
ZOOG-CC3-3-P	PHYSIOLOGY AND BIOCHEMISTRY	STUDY OF PERMANENT HISTOLOGICAL SECTIONS OF MAMMALIAN PITUITARY, THYROID PANCREAS , ADRENAL GLAND MAMMALIAN DUODENUM, LIVER, LUNG,KIDNEY	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-CC5-11-TH	ECOLOGY	COMMUNITY ECOSYSTEM	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-DSE(A)-5-1-TH	PARASITOLOGY	PARASITIC ARTHROPODS PARASITIC VERTEBRATES	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-CC2-3-TH	NON-CHORDATES II-COELOMATES	ONYCHOPHORA , MOLLUSCA	ENTIRE	MARCH - AUGUST	14
ZOOA-CC2-3-P	NON-CHORDATES II-COELOMATES	ANATOMY STUDY	REPRODUCTIVE SYSTEM, MOUTH PARTS, SALIVARY APPARATUS OF COCKROACH.	MARCH - AUGUST	20
ZOOG-CC2-2-P	COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY	STUDY OF THE DIFFERENT TYPES OF PLACENTA DEVELOPMENTAL STAGES OF CHICK EMBRYO 24 HRS, 48 HRS, 72 HRS, 96 HRS	HISTOLOGICAL SECTIONS PERMANENT MOUNT SLIDES SHOW	MARCH - AUGUST	20
ZOOA-SEC(B)-4-1-TH	AQUARIUM FISH KEEPING	FOOD AND FEEDING OF AQUARIUM FISHES FISH TRANSPORTATION MAINTENANCE OF AQUARIUM	ALL	MARCH - AUGUST	20
ZOOA-SEC(B)-4-2-TH	MEDICAL DIAGNOSTIC TECHNIQUE	CLINICAL BIOCHEMISTRY CLINICAL MICROBIOLOGY	ALL	MARCH - AUGUST	20
ZOOG-CC4-4-TH	GENETICS AND EVOLUTIONARY BIOLOGY	ORIGIN OF LIFE EVOLUTIONARY THEORIES PROCESS OF EVOLUTIONARY CHANGES SPECIATION	ALL	MARCH - AUGUST	20
ZOOG-CC4-4-P	GENETICS AND EVOLUTIONARY	VERIFICATION OF MENDELIAN RATIO USING CHI-SQUARE	ALL	MARCH -	20

	BIOLOGY	TEST IDENTIFICATION OF HUMAN ANEUPLOIDY USING PHOTOGRAPHS OF KARYOTYPE PHYLOGENY OF HORSE WITH DIAGRAMS OF LIMBS AND SKULL STUDY AND IDENTIFICATION OF DARWINIAN FINCHES BY PHOTOGRAPH.		AUGUST	
ZOOA-DSE(B)-6-2-TH	FISH AND FISHERIES	AQUACULTURE FISH IN RESEARCH	ALL	MARCH - AUGUST	20
AECC2	ENVIRONMENTAL STUDIES	INTRODUCTION TO ENVIRONMENTAL STUDIES NATURAL RESOURCES BIODIVERSITY AND CONSERVATION POLLUTION ENVIRONMENTAL POLICIES AND PRACTICES HUMAN COMMUNITIES AND THE ENVIRONMENT	ALL	MARCH - AUGUST	25

**SESSION : 2021-22**

<b>COURSE TYPE</b>	<b>PAPER</b>	<b>UNIT NAME</b>	<b>SUB-UNIT NAME</b>	<b>MONT H</b>	<b>NO. OF CLASSES</b>
ZOOA-CC1-1-TH	NON-CHORDATE 1	BASICS OF ANIMAL CLASSIFICATION, PORIFERA.	ENTIRE	SEPTEMBER-FEBRUARY	13
ZOOA-CC3-5-TH	CHORDATA	PISCES, AMPHIBIA	ENTIRE	SEPTEMBER-FEBRUARY	20
ZOOA-CC3-7-TH	FUNDAMENTALS OF BIOCHEMISTRY	LIPIDS	STRUCTURE AND SIGNIFICANCE OF LIPIDS, LIPID METABOLISM	SEPTEMBER-FEBRUARY	17
ZOOA-SEC(A)-3-1-TH	APICULTURE	BIOLOGY OF BEES REARING OF BEES ENTREPRENEURSHIP IN APICULTURE	ALL	SEPTEMBER-FEBRUARY	17
ZOOG-CC1-1-TH	ANIMAL DIVERSITY	ECHINODERMATA,PROTOCHORDATES,AGNATHA, PISCES,AMPHIBIA,REPTILIA	ENTIRE	SEPTEMBER-FEBRUARY	20
ZOOG-CC3-3-P	PHYSIOLOGY AND BIOCHEMISTRY	STUDY OF PERMANENT HISTOLOGICAL SECTIONS OF MAMMALIAN PITUITARY, THYROID PANCREAS ,	ALL	SEPTEMBER-FEBRUARY	12

		ADRENAL GLAND MAMMALIAN DUODENUM, LIVER, LUNG, KIDNEY			
ZOOA-CC5-11-TH	ECOLOGY	COMMUNITY ECOSYSTEM	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-DSE(A)-5-1-TH	PARASITOLOGY	PARASITIC ARTHROPODS PARASITIC VERTEBRATES	ALL	SEPTEMBER-FEBRUARY	12
ZOOA-CC2-3-TH	NON-CHORDATES II-COELOMATES	ONYCHOPHORA , MOLLUSCA	ENTIRE	MARCH - AUGUST	14
ZOOA-CC2-3-P	NON-CHORDATES II-COELOMATES	ANATOMY STUDY	REPRODUCTIVE SYSTEM, MOUTH PARTS, SALIVARY APPARATUS OF COCKROACH.	MARCH - AUGUST	20
ZOOG-CC2-2-P	COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY	STUDY OF THE DIFFERENT TYPES OF PLACENTA DEVELOPMENTAL STAGES OF CHICK EMBRYO 24 HRS, 48 HRS, 72 HRS, 96 HRS	HISTOLOGICAL SECTIONS PERMANENT MOUNT SLIDES SHOW	MARCH - AUGUST	20
ZOOA-SEC(B)-4-1-TH	AQUARIUM FISH KEEPING	FOOD AND FEEDING OF AQUARIUM FISHES FISH TRANSPORTATION MAINTENANCE OF AQUARIUM	ALL	MARCH - AUGUST	20
ZOOA-SEC(B)-4-2-TH	MEDICAL DIAGNOSTIC TECHNIQUE	CLINICAL BIOCHEMISTRY CLINICAL MICROBIOLOGY	ALL	MARCH - AUGUST	20
ZOOG-CC4-4-TH	GENETICS AND EVOLUTIONARY BIOLOGY	ORIGIN OF LIFE EVOLUTIONARY THEORIES PROCESS OF EVOLUTIONARY CHANGES SPECIATION	ALL	MARCH - AUGUST	20
ZOOG-CC4-4-P	GENETICS AND EVOLUTIONARY BIOLOGY	VERIFICATION OF MENDELIAN RATIO USING CHI-SQUARE TEST IDENTIFICATION OF HUMAN ANEUPLOIDY USING PHOTOGRAPHS OF KARYOTYPE PHYLOGENY OF HORSE WITH DIAGRAMS OF LIMBS AND SKULL STUDY AND IDENTIFICATION OF DARWINIAN FINCHES BY PHOTOGRAPH.	ALL	MARCH - AUGUST	20
ZOOA-DSE(B)-6-2-TH	FISH AND FISHERIES	AQUACULTURE FISH IN RESEARCH	ALL	MARCH - AUGUST	20



				T	
AECC2	ENVIRONMENTAL STUDIES	INTRODUCTION TO ENVIRONMENTAL STUDIES NATURAL RESOURCES BIODIVERSITY AND CONSERVATION POLLUTION ENVIRONMENTAL POLICIES AND PRACTICES HUMAN COMMUNITIES AND THE ENVIRONMENT	ALL	MARCH - AUGUST	25

**TEACHING PLAN**

<b>2018-2019</b>					
<b>NAME: SOUMI NANDI</b>					
<b>COURSE TYPE (CC/GE/SEC/AECC/DSE)</b>	<b>PAPER</b>	<b>UNIT NAME</b>	<b>SUB UNIT NAME</b>	<b>MONTH</b>	<b>NO OF CLASS</b>
IH-TH	PAPER-1; UNIT II	2,3	CELL BIOLOGY AND GENETICS		4
IIH-TH	PAPER-3; UNIT I, GROUP B	7,9,10,11	EVOLUTION AND ADAPTATION		6
IIH-P	PAPER-4; UNIT II		IDENTIFICATION OF NONCHORDATES		14
ZOOGI-TH			ANNELIDA, PLATYHELMINTHES		4
ZOOGI-P	III	3, ii	HISTOLOGY SLIDE		
ZOOGII-P	III		DEMONSTRATION i)		12
			MOUNTING AND PREPARATION, i), ii)		4
CC1-TH	NON CHORDATES-I	UNIT 6	PLATYHELMINTHES		6
		UNIT 7	NEMATODA		7
CCI P	NON CHORDATES-I		IDENTIFICATION		8
			MOUNTING TECH, AMOEBA, PARAMOECIUM		6
			STAINING/MOUNTING OF PROTOZOA /HELMINTH FROM GUT OF COCKROACH		4

TEACHING PLAN-2019-2020					
NAME: SOUMI NANDI					
COURSE TYPE (CC/GE/SEC/AECC/DSE)	PAPER	UNIT NAME	SUB UNIT NAME	MONTH	NO OF CLASS
IIH-TH	PAPER-4; UNIT II	i)	ANIMAL PHYSIOLOGY AND BIOCHEMISTRY		4
IIIH-TH	PAPER-5; UNIT II	4	PARASITOLOGY and MICROBIOLOGY		6
	PAPER-6; UNIT II	2 i), ii)	BIOTECHNOLOGY AND APPLIED ZOOLOGY		3
IIIH-P	PAPER-7	b)	PARASITOLOGY AND MICROBIOLOGY		6
		c)	GRAM STAINING OF BACTERIA		4
CC1-TH	NON CHORDATES-I	UNIT 6	PLATYHELMINTHES		6
		UNIT 7	NEMATODA		7
CCI P	NON CHORDATES-I		IDENTIFICATION		8
CC3-TH	NON CHORDATES-II	UNIT 6	ECHINODERMATA		6
		UNIT 7	HEMICHORDATA		3
CC3-P			IDENTIFICATION		12
			ANATOMY STUDY		16
CC4-TH	CELL BIOLOGY	UNIT 1	PLASMA MEMBRANE		7
		UNIT 2	CYTOPLASMIC ORGANELLES I		6
CC5-TH	CHORDATA	UNIT 7	AVES		6
		UNIT 8	MAMMALS		7
CC5-P	CHORDATA		IDENTIFICATION		12
			DISSECTION		16
CC6-TH	ANIMAL PHYSIOLOGY	UNIT 1	TISSUES		5
		UNIT 2	BONE AND CARTILAGE		4
CC8-TH	COMPARATIVE ANATOMY OF VERTEBRATES	UNIT 4	CIRCULATORY SYSTEM		5
		UNIT 7	SKELETAL SYSTEM		5
CC9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	UNIT 3	PHYSIOLOGY OF CIRCULATION		7
		UNIT 4	PHYSIOLOGY OF HEART		6
CC12-TH	PRINCIPLE OF GENETICS	UNIT 1	MENDELIAN GENETICS AND ITS EXTENSION		8
		UNIT 5	EXTRA CHROMOSOMAL INHERITANCE		3
ZOOG-CC3-P	PHYSIOLOGY AND BIOCHEMISTRY	2	STUDY OF HISTOLOGICAL SECTIONS		
		3	QUALITATIVE TEST FOR CARBOHYDRATE SAMPLES		8

TEACHING PLAN-2020-2021					
NAME: SOUMI NANDI					
COURSE TYPE (CC/GE/SEC/AECC/DSE)	PAPER	UNIT NAME	SUB UNIT NAME	MONTH	NO OF CLASS
CC1-TH	NON CHORDATES-I	UNIT 6	PLATYHELMINTHES		6
		UNIT 7	NEMATODA		7
CCI P	NON CHORDATES-I		IDENTIFICATION		8
CC3-TH	NON CHORDATES-II	UNIT 6	ECHINODERMATA		6
		UNIT 7	HEMICHORDATA		3
CC3-P			IDENTIFICATION		12
			ANATOMY STUDY		16
CC4-TH	CELL BIOLOGY	UNIT 1	PLASMA MEMBRANE		7
		UNIT 2	CYTOPLASMIC ORGANELLES I		6
CC5-TH	CHORDATA	UNIT 7	AVES		6
		UNIT 8	MAMMALS		7
CC5-P	CHORDATA		IDENTIFICATION		12
CC6-TH	ANIMAL PHYSIOLOGY	UNIT 1	TISSUES		5
		UNIT 2	BONE AND CARTILAGE		4
CC8-TH	COMPARATIVE ANATOMY OF VERTEBRATES	UNIT 4	CIRCULATORY SYSTEM		5
		UNIT 7	SKELETAL SYSTEM		5
CC9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	UNIT 3	PHYSIOLOGY OF CIRCULATION		7
		UNIT 4	PHYSIOLOGY OF HEART		6
CC12-TH	PRINCIPLE OF GENETICS	UNIT 1	MENDELIAN GENETICS AND ITS EXTENSION		8
		UNIT 5	EXTRA CHROMOSOMAL INHERITANCE		3
DSEB1-5-TH	ENDOCRINOLOGY	UNIT 3	PERIPHERAL ENDOCRINE GLANDS		9
ZOOG-CC2-TH	INTEGUMENTARY SYSTEM	UNIT 1			4
ZOOG-CC4-P			STUDY AND IDENTIFICATION OF DARWIN FINCHES FROM PHOTOGRAPHS		2

TEACHING PLAN-2021-2022					
NAME: SOUMI NANDI					
COURSE TYPE	PAPER	UNIT	SUB UNIT NAME	MONTH	NO OF

(CC/GE/SEC/AECC/DSE)		NAME			CLASS
CC1-TH	NON CHORDATES-I	UNIT 6	PLATYHELMINTHES		6
		UNIT 7	NEMATODA		7
CC1-P	NON CHORDATES-I		IDENTIFICATION		8
			STAINING/MOUNTING OF PROTOZOA /HELMINTH FROM GUT OF COCKROACH		4
CC3-TH	NON CHORDATES-II	UNIT 6	ECHINODERMATA		6
		UNIT 7	HEMICHORDATA		3
CC3-P			IDENTIFICATION		12
			ANATOMY STUDY		16
CC4-TH	CELL BIOLOGY	UNIT 1	PLASMA MEMBRANE		7
		UNIT 2	CYTOPLASMIC ORGANELLES I		6
CC5-TH	CHORDATA	UNIT 7	AVES		6
		UNIT 8	MAMMALS		7
CC5-P	CHORDATA		IDENTIFICATION		12
			DISSECTION		16
CC6-TH	ANIMAL PHYSIOLOGY	UNIT 1	TISSUES		5
		UNIT 2	BONE AND CARTILAGE		4
CC8-TH	COMPARATIVE ANATOMY OF VERTEBRATES	UNIT 4	CIRCULATORY SYSTEM		5
		UNIT 7	SKELETAL SYSTEM		5
CC9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	UNIT 3	PHYSIOLOGY OF CIRCULATION		7
		UNIT 4	PHYSIOLOGY OF HEART		6
CC12-TH	PRINCIPLE OF GENETICS	UNIT 1	MENDELIAN GENETICS AND ITS EXTENSION		8
		UNIT 5	EXTRA CHROMOSOMAL INHERITANCE		3
CC13-TH	DEVELOPMENTAL BIOLOGY	UNIT 1	EARLY EMBRYONIC DEVELOPMENT		16
CC13-P		2	STUDY OF DEVELOPMENTAL STAGES OF DROSOPHILA		2
		4	IDENTIFICATION OF INVERTEBRATE LARVA		8
DSEA1-5-P		3,4	STUDY OF ADULT AND LIFE STAGES OF SCHISTOSOMA, TAENIA, ANCHYLOSTOMA		6
DSEB1-5-TH	ENDOCRINOLOGY	UNIT 3	PERIPHERAL ENDOCRINE GLANDS		9
DSEA1-6-TH	ANIMAL CELL BIOTECHNOLOGY	UNIT 4	FERMENTATION		10

DSEB2-6-TH	FISH AND FISHERIES	UNIT 4	AQUACULTURE		15
		2	IDENTIFICATION		8
		3	STUDY OF DIFFERENT TYPES OF SCALES		2

TEACHING PLAN-2022-2023					
NAME: SOUMI NANDI					
COURSE TYPE (CC/GE/SEC/AECC/DSE)	PAPER	UNIT NAME	SUB UNIT NAME	MONTH	NO OF CLASS
CC1-TH	NON CHORDATES-I	UNIT 6	PLATYHELMINTHES		6
		UNIT 7	NEMATODA		7
CCI P	NON CHORDATES-I		IDENTIFICATION		8
			STAINING/MOUNTING OF PROTOZOA /HELMINTH FROM GUT OF COCKROACH		4
CC3-P			IDENTIFICATION		12
			ANATOMY STUDY		16
CC4-TH	CELL BIOLOGY	UNIT 1	PLASMA MEMBRANE		7
		UNIT 2	CYTOPLASMIC ORGANELLES I		6
CC5-TH	CHORDATA	UNIT 7	AVES		6
		UNIT 8	MAMMALS		7
CC5-P	CHORDATA		IDENTIFICATION		12
			DISSECTION		16
CC6-TH	ANIMAL PHYSIOLOGY	UNIT 1	TISSUES		5
		UNIT 2	BONE AND CARTILAGE		4
CC8-TH	COMPARATIVE ANATOMY OF VERTEBRATES	UNIT 4	CIRCULATORY SYSTEM		5
		UNIT 7	SKELETAL SYSTEM		5
CC9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	UNIT 3	PHYSIOLOGY OF CIRCULATION		7
		UNIT 4	PHYSIOLOGY OF HEART		6
CC12-TH	PRINCIPLE OF GENETICS	UNIT 1	MENDELIAN GENETICS AND ITS EXTENSION		8
		UNIT 5	EXTRA CHROMOSOMAL INHERITANCE		3
CC13-TH	DEVELOPMENTAL BIOLOGY	UNIT 1	EARLY EMBRYONIC DEVELOPMENT		16

CC13-P		2	STUDY OF DEVELOPMENTAL STAGES OF DROSOPHILA		2
		4	IDENTIFICATION OF INVERTEBRATE LARVA		8
DSEA1-5-P		3,4	STUDY OF ADULT AND LIFE STAGES OF SCHISTOSOMA, TAENIA, ANCHYLOSTOMA		6
DSEB1-5-TH	ENDOCRINOLOGY	UNIT 3	PERIPHERAL ENDOCRINE GLANDS		9
DSEA1-6-TH	ANIMAL CELL BIOTECHNOLOGY	UNIT 4	FERMENTATION		10
DSEB2-6-P		1	MORPHOMETRIC AND MERISTIC CHARACTERS OF FISHES		4
		2	IDENTIFICATION		8
		3	STUDY OF DIFFERENT TYPES OF SCALES		2
ZOOG-CC3-P	PHYSIOLOGY AND BIOCHEMISTRY	3	QUALITATIVE TEST FOR CARBOHYDRATE SAMPLES		8

## Teaching Plan

Department: Zoology  
Name of the teacher: SUSMITA DAS

Session: 2018-19

Course type (CC/GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	No. of classes
PART II: SEM III			1. Histology and function of thyroid <b>(Th.)</b>	03
			2. Histology and function of pancreas <b>(Th.)</b>	03
			3. Histology and function of adrenal <b>(Th.)</b>	03
			4. Function of pituitary <b>(Th.)</b>	02
			5. Classification of hormones <b>(Th.)</b>	03
			6. Mechanism of hormone action <b>(Th.)</b>	02
			7. Signal transduction pathways for Steroidal and non-steroidal hormones <b>(Th.)</b>	03
CC6/ZOOA	Animal Physiology: Controlling and Co-ordinating System	Unit 6: Endocrine System	8. Hypothalamus (neuroendocrine gland) – principal nuclei involved in neuroendocrine control of anterior pituitary <b>(Th.)</b>	04
			9. Placental hormone <b>(Th.)</b>	02
			3. Study of permanent slides of -Mammalian (White Rat) Skin, Spinal cord <b>(Pr.)</b>	02
			-Study of permanent slides of Pancreas, Testis <b>(Pr.)</b>	02
			-Study of permanent slides of Ovary, Adrenal <b>(Pr.)</b>	02
			-Study of permanent slides of Lung, Pyloric stomach <b>(Pr.)</b>	02
			-Study of permanent slides of Cardiac stomach, Thyroid <b>(Pr.)</b>	02
			-Study of permanent slides of small intestine, large intestine <b>(Pr.)</b>	02
SEC-A-1	Apiculture	Unit 1: Biology of Bees	1. Classification and biology of Honey Bees <b>(Th.)</b>	02
			2. Social organisation of Bee colony <b>(Th.)</b>	02
		Unit 2: Rearing of	1. Artificial Bee rearing; Apiary <b>(Th.)</b>	04



		Bees	2. Beehives – Newton and Langstroth( <b>Th.</b> )	02
			3. Bee pasturage ( <b>Th.</b> )	02
			4. Selection of Bee species in Apiculture( <b>Th.</b> )	02
			5. Bee keeping equipment( <b>Th.</b> )	02
			6. Methods of extraction of Honey; (indigenous and modern)( <b>Th.</b> )	04
PART III: SEM V		<b>Unit 1:</b> Introduction to Parasitology	1. Brief introduction of Parasitism( <b>Th.</b> )	02
			2. Parasitoid and Vectors (mechanical and biological)( <b>Th.</b> )	02
			3. Host parasite relationship( <b>Th.</b> )	02
DSE-A-1	Parasitology	<b>Unit 2:</b> Parasitic Protists	1. Study of morphology and life cycle of <i>Giardia intestinalis</i> ( <b>Th.</b> )	02
			2. Study of prevalence and epidemiology of <i>Giardia intestinalis</i> ( <b>Th.</b> )	02
			3. Study of pathogenicity and diagnosis <i>Giardia intestinalis</i> ( <b>Th.</b> )	02
			4. Study of prophylaxis and treatment of <i>Giardia intestinalis</i> ( <b>Th.</b> )	02
			5. Study of morphology and life cycle of <i>Trypanosoma gambiense</i> ( <b>Th.</b> )	02
			6. Study of prevalence and epidemiology of <i>Trypanosoma gambiense</i> ( <b>Th.</b> )	02
			7. Study of pathogenicity and diagnosis of <i>Trypanosoma gambiense</i> ( <b>Th.</b> )	02
			8. Study of prophylaxis and treatment of <i>Trypanosoma gambiense</i> ( <b>Th.</b> )	02
			9. Study of morphology and life cycle of <i>Leishmania donovani</i> ( <b>Th.</b> )	02
			10. Study of prevalence and epidemiology of <i>Leishmania donovani</i> ( <b>Th.</b> )	02
			11. Study of pathogenicity and diagnosis of <i>Leishmania donovani</i> ( <b>Th.</b> )	02
			12. Study of prophylaxis and treatment of <i>Leishmania donovani</i> ( <b>Th.</b> )	02
ZOOG CC2/GE2	Comparative anatomy and Developmental	<b>Unit 2:</b> Digestive	1. Stomach ( <b>Th.</b> )	03

	Biology	System	2. Dentition ( <b>Th.</b> )	04
ZOOG			1. Physiology of male reproduction: Histology of testis ( <b>Th.</b> )	04
CC3/GE3	Physiology and Biochemistry	Unit 6: Reproduction and Endocrine Glands	2. Hormonal control of spermatogenesis ( <b>Th.</b> )	02
			3. Physiology of female reproduction: Histology of ovary ( <b>Th.</b> )	03
			4. Hormonal control and menstrual cycle ( <b>Th.</b> )	02
			5. Structure and function of pituitary ( <b>Th.</b> )	03
			6. Structure and function of thyroid ( <b>Th.</b> )	02
			7. Structure and function of pancreas ( <b>Th.</b> )	02
			8. Structure and function of adrenal ( <b>Th.</b> )	02
		Unit 7: Carbohydrate Metabolism	1. Glycolysis( <b>Th.</b> )	02
			2. Kreb's cycle ( <b>Th.</b> )	02
			3. Glycogenesis ( <b>Th.</b> )	02
			4. Electron Transport Chain ( <b>Th.</b> )	02
ZOOG			1. Lamarckism ( <b>Th.</b> )	03
CC4/GE4	Genetics and Evolutionary Biology	Unit 6: Evolutionary theories	2. Darwinism ( <b>Th.</b> )	03
			3. Neo-Darwinism ( <b>Th.</b> )	03
			4. Phylogeny of horse with diagram of limb and skull ( <b>Pr.</b> )	03
			5. Study and identification of Darwin Finches from photograph ( <b>Pr.</b> )	04

Teaching Plan

Department: Zoology  
Name of the teacher: Susmita Das

Session: 2019-20

Course type (CC/GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	No. of classes
PART I: SEM I  <b>CC1/ZOOA</b>	Non-Chordates I: Protists to pseudocoelomate	<b>Unit 4: Cnidaria</b>	1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) <b>(Th.)</b>	02
			2. Metagenesis in <i>Obelia</i> <b>(Th.)</b>	03
			3. Polymorphism in Cnidaria <b>(Th.)</b>	05
			4. Corals and coral reef diversity <b>(Th.)</b>	03
			5. Role of symbiotic algae in reef formation <b>(Th.)</b>	03
			6. Conservation of coral and coral reefs <b>(Th.)</b>	03
		<b>Unit 5: Ctenophora</b>	1. General characteristics <b>(Th.)</b>	03
			2. Staining/mounting of any protozoa/helminth from gut of <i>Periplaneta</i> sp. <b>(Pr.)</b>	04
<b>CC2/ZOOA</b>	Molecular Biology	<b>Unit 7: DNA Repair Mechanism</b>	1. Types of DNA repair mechanisms <b>(Th.)</b>	02
			2. RecBCD model in prokaryotes <b>(Th.)</b>	02
			3. Nucleotide and base excision repair <b>(Th.)</b>	02
			4. SOS repair <b>(Th.)</b>	02
PART I: SEM II  <b>CC3/ZOOA</b>	Non-Chordates II: Coelomates	<b>Unit 3: Arthropoda</b>	1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) <b>(Th.)</b>	04
			2. Insect eye (Cockroach only) <b>(Th.)</b>	04
			3. Respiration in Prawn <b>(Th.)</b>	04
			4. Respiration in Cockroach <b>(Th.)</b>	04
			5. Metamorphosis in Lepidopteran insects <b>(Th.)</b>	10
			6. Social life in termite <b>(Th.)</b>	03
PART II: SEM III			1. Histology and function of thyroid <b>(Th.)</b>	03
			2. Histology and function of pancreas <b>(Th.)</b>	03
			3. Histology and function of adrenal <b>(Th.)</b>	03
			4. Function of pituitary <b>(Th.)</b>	02

<b>CC6/ZOOA</b>	Animal Physiology: Controlling and Co-ordinating System	<b>Unit 6:</b> Endocrine System	5. Classification of hormones <b>(Th.)</b>	03
			6. Mechanism of hormone action <b>(Th.)</b>	02
			7. Signal transduction pathways for Steroidal and non-steroidal hormones <b>(Th.)</b>	03
			8. Hypothalamus (neuroendocrine gland) – principal nuclei involved in neuroendocrine control of anterior pituitary <b>(Th.)</b>	04
			9. Placental hormone <b>(Th.)</b>	02
			3. Study of permanent slides of -Mammalian (White Rat) Skin, Spinal cord <b>(Pr.)</b>	04
			-Study of permanent slides of Pancreas, Testis <b>(Pr.)</b>	06
			-Study of permanent slides of Ovary, Adrenal <b>(Pr.)</b>	06
			-Study of permanent slides of Lung, Pyloric stomach <b>(Pr.)</b>	08
			-Study of permanent slides of Cardiac stomach, Thyroid <b>(Pr.)</b>	06
			-Study of permanent slides of small intestine, large intestine <b>(Pr.)</b>	08
PART II: SEM III  <b>CC8/ZOOA</b>	Comparative Anatomy of Vertebrates	<b>Unit 2:</b> Digestive System	1. Comparative anatomy of stomach <b>(Th.)</b>	04
			2. Dentition in mammals <b>(Th.)</b>	04
		<b>Unit 3:</b> Respiratory system	1. Respiratory organs in fish <b>(Th.)</b>	03
			2. Respiratory organs in birds <b>(Th.)</b>	03
			3. Respiratory organs in mammals <b>(Th.)</b>	05
			1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs <b>(Pr.)</b>	08
<b>SEC-A-1</b>	Apiculture	<b>Unit 1:</b> Biology of Bees	1. Classification and biology of Honey Bees <b>(Th.)</b>	03
			2. Social organisation of Bee colony <b>(Th.)</b>	03
		<b>Unit 2:</b> Rearing of Bees	1. Artificial Bee rearing; Apiary <b>(Th.)</b>	04
			2. Beehives – Newton and Langstroth box <b>(Th.)</b>	04

			3. Bee pasturage (Th.)	03
			4. Selection of Bee species in Apiculture (Th.)	03
			5. Bee keeping equipment (Th.)	03
			6. Methods of extraction of Honey; (indigenous and modern) (Th.)	04
		<b>Unit 3:</b> Disease and Enemies	1. Bee disease and enemies (Th.)	12
			2. Control and preventive measure (Th.)	05
		<b>Unit 4:</b> Bee economy	1. Products of Apiculture industry and uses - Honey, Bees wax, Propolis, Pollen etc. (Th.)	10
		<b>Unit 5:</b> Entrepreneurship in Apiculture	1. Bee keeping industry – Recent efforts (Th.)	04
			2. Modern methods of employing artificial Beehives for cross pollination in horticulture gardens (Th.)	05
PART II: SEM IV  <b>SEC-B-1</b>	Aquarium Fish Keeping	<b>Unit 1:</b> Introduction to Aquarium Fish Keeping	1. The potential scope of aquarium fish industry as a cottage industry (Th.)	04
			2. Exotic and endemic species of Aquarium fishes(Th.)	03
		<b>Unit 2:</b> Biology of Aquarium Fishes	Common characteristics and sexual dimorphism of fresh water and marine aquarium fishes such as - 1. Guppy, Molly(Th.)	04
			2. Sword tail, Gold fish(Th.)	04
			3. Angel fish, blue morph(Th.)	04
			4. Anemone fish and Butterfly fish(Th.)	05
<b>SEC-B-2</b>	Medical Diagnostic Technique	<b>Unit 1:</b> Diagnostics Methods Used for Analysis of Blood	1. Blood composition (Th.)	03
			2. Differential Leucocyte Count (DLC) using Leishman's stain (Th.)	04
			3. Platelet Count using haemocytometer (Th.)	03
			4. Erythrocytic Sedimentation Rate (ESR) (Th.)	04

			5. Packed Cell Volume (PCV) (Th.)	03
		Unit 1: Diagnostics Methods Used for Urine culture	1. Urine analysis (Th.)	04
			2. Physical characteristics of urine (Th.)	03
			3. Abnormal constituents of urine (Th.)	04
			4. Urine culture (Th.)	05
PART III: SEM V	Principle of Genetics	Unit 7:Transposable Genetic Eleements	1. IS elements in bacteria (Th.)	03
CC12/ZOOA			2. Ac-Ds elements in Maize(Th.)	03
			3. P elements in Drosophila(Th.)	02
			4. LINE, SINE, Alu elements in human (Th.)	04
PART III: SEM VI	Evolutionary Biology	Unit 3:	1. Geological time scale (Th.)	04
CC14/ZOOA			2. Fossil: types of it (Th.)	03
			3. Role of fossils in age (Th.) determination by carbon dating (Th.)	03
			4. Evolution of horse (Th.)	03
PART III: SEM V	Parasitology	Unit 1: Introduction to Parasitology	1. Brief introduction of Parasitism (Th.)	02
DSE-A-1			2. Parasitoid and Vectors (mechanical and biological) (Th.)	02
			3. Host parasite relationship (Th.)	02
		Unit 2: Parasitic Protists	1. Study of morphology and life cycle of Giardia intestinalis(Th.)	02
			2. Study of prevalence and epidemiology of Giardia intestinalis(Th.)	02
			3. Study of pathogenicity and diagnosis Giardia intestinalis(Th.)	02
			4. Study of prophylaxis and treatment of Giardia intestinalis(Th.)	02
			5. Study of morphology and life cycle of Trypanosoma gambiense(Th.)	02
6. Study of prevalence and epidemiology of Trypanosoma gambiense(Th.)			02	
7. Study of pathogenicity and 02diagnosis of Trypanosoma				

			<i>gambiense</i> (Th.)	02
			8. Study of prophylaxis and treatment of <i>Trypanosoma gambiense</i> (Th.)	02
			9. Study of morphology and life cycle of <i>Leishmania donovani</i> (Th.)	02
			10. Study of prevalence and epidemiology of <i>Leishmania donovani</i> (Th.)	02
			11. Study of pathogenicity and diagnosis of <i>Leishmania donovani</i> (Th.)	02
			12. Study of prophylaxis and treatment of <i>Leishmania donovani</i> (Th.)	02
<b>DSE-B-1</b>	Endocrinology	<b>Unit 2:</b> Hypothalamo-Hypophyseal Axis	1. Structure and function of hypothalamus and hypothalamic nuclei(Th.)	06
			2. Regulation of neuroendocrine glands (Th.)	08
			3. Feedback mechanisms(Th.)	04
			4. Hypothalamo- Hypophyseal gonadal axis(Th.)	03
			5. Structure of pituitary gland(Th.)	04
			6. Hormones and their functions(Th.)	03
			7. Hypothalamo- Hypophyseal portal system(Th.)	03
PART III: SEM VI  <b>DSE-B-2</b>	Fish and Fisheries	<b>Unit 2:</b> Morphology and Physiology	1. Types of fins and their modification (Th.)	04
			2. Locomotion in fish (Th.)	05
			3. Hydrodynamics (Th.)	03
			4. Types of scales (Th.)	04
			5. Use of scales in classification and determination of age of fish (Th.)	03
			6. Gills and gas exchange (Th.)	05
			7. Swim bladder types (Th.)	04
			8. Roles of swim bladder in respiration (Th.)	04
			9. Buoyancy (Th.)	02
			10. Electric organ (Th.)	04
			11. Bioluminescence (Th.)	03
<b>ZOOG CC2/GE2</b>	Comparative anatomy and Developmental Biology	<b>Unit 2:</b> Digestive System	1. Stomach (Th.)	03
			2. Dentition (Th.)	04

ZOOG  <b>CC3/GE3</b>	Physiology and Biochemistry	<b>Unit 6:</b> Reproduction and Endocrine Glands	1. Physiology of male reproduction: Histology of testis <b>(Th.)</b>	04
			2. Hormonal control of spermatogenesis <b>(Th.)</b>	02
			3. Physiology of female reproduction: Histology of ovary <b>(Th.)</b>	03
			4. Hormonal control and menstrual cycle <b>(Th.)</b>	02
			5. Structure and function of pituitary <b>(Th.)</b>	03
			6. Structure and function of thyroid <b>(Th.)</b>	02
			7. Structure and function of pancreas <b>(Th.)</b>	02
			8. Structure and function of adrenal <b>(Th.)</b>	02
		<b>Unit 7:</b> Carbohydrate Metabolism	1. Glycolysis <b>(Th.)</b>	02
			2. Kreb's cycle <b>(Th.)</b>	02
			3. Glycogenesis <b>(Th.)</b>	02
			4. Electron Transport Chain <b>(Th.)</b>	02
ZOOG  <b>CC4/GE4</b>	Genetics and Evolutionary Biology	<b>Unit 6:</b> Evolutionary theories	1. Lamarckism <b>(Th.)</b>	03
			2. Darwinism <b>(Th.)</b>	03
			3. Neo-Darwinism <b>(Th.)</b>	03
			4. Phylogeny of horse with diagram of limb and skull <b>(Pr.)</b>	12
			5. Study and identification of Darwin Finches from photograph <b>(Pr.)</b>	12



### Teaching Plan

Department: Zoology

Name of the teacher: Susmita Das

Session: 2020-21

Course type (CC/GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	No. of classes
PART I: SEM I  <b>CC1/ZOOA</b>	Non-Chordates I: Protists to pseudocoelomate	<b>Unit 4: Cnidaria</b>	1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) <b>(Th.)</b>	02
			2. Metagenesis in <i>Obelia</i> <b>(Th.)</b>	03
			3. Polymorphism in Cnidaria <b>(Th.)</b>	05
			4. Corals and coral reef diversity <b>(Th.)</b>	03
			5. Role of symbiotic algae in reef formation <b>(Th.)</b>	03
			6. Conservation of coral and coral reefs <b>(Th.)</b>	03
		<b>Unit 5: Ctenophora</b>	1. General characteristics <b>(Th.)</b>	03
			2. Staining/mounting of any protozoa/helminth from gut of <i>Periplaneta</i> sp. <b>(Pr.)</b>	04
<b>CC2/ZOOA</b>	Molecular Biology	<b>Unit 7: DNA Repair Mechanism</b>	1. Types of DNA repair mechanisms <b>(Th.)</b>	02
			2. RecBCD model in prokaryotes <b>(Th.)</b>	02
			3. Nucleotide and base excision repair <b>(Th.)</b>	02
			4. SOS repair <b>(Th.)</b>	02
PART I: SEM II  <b>CC3/ZOOA</b>	Non-Chordates II: Coelomates	<b>Unit 3: Arthropoda</b>	1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) <b>(Th.)</b>	04
			2. Insect eye (Cockroach only) <b>(Th.)</b>	04
			3. Respiration in Prawn <b>(Th.)</b>	04
			4. Respiration in Cockroach <b>(Th.)</b>	04
			5. Metamorphosis in Lepidopteran insects <b>(Th.)</b>	10
			6. Social life in termite <b>(Th.)</b>	03
			1. b. Study of following specimens: Arthropods 1. <i>Limulus</i> , <i>Palaemon</i> <b>(Pr.)</b>	08
			2. <i>Balanus</i> , <i>Eupagurus</i> <b>(Pr.)</b>	08
			3. <i>Scolopendra</i> , <i>Peripatus</i> <b>(Pr.)</b>	08
			4. Silkworm – life history stages <b>(Pr.)</b>	07

			5. Termite – members of a colony <b>(Pr.)</b>	10
			6. Honey Bee – members of the colony <b>(Pr.)</b>	08
PART II: SEM III			1. Histology and function of thyroid <b>(Th.)</b>	03
			2. Histology and function of pancreas <b>(Th.)</b>	03
			3. Histology and function of adrenal <b>(Th.)</b>	03
			4. Function of pituitary <b>(Th.)</b>	02
			5. Classification of hormones <b>(Th.)</b>	03
			6. Mechanism of hormone action <b>(Th.)</b>	02
			7. Signal transduction pathways for Steroidal and non-steroidal hormones <b>(Th.)</b>	03
			8. Hypothalamus (neuroendocrine gland) – principal nuclei involved in neuroendocrine control of anterior pituitary <b>(Th.)</b>	04
			9. Placental hormone <b>(Th.)</b>	02
			3. Study of permanent slides of -Mammalian (White Rat) Skin, Spinal cord <b>(Pr.)</b>	04
			-Study of permanent slides of Pancreas, Testis <b>(Pr.)</b>	06
			-Study of permanent slides of Ovary, Adrenal <b>(Pr.)</b>	06
			-Study of permanent slides of Lung, Pyloric stomach <b>(Pr.)</b>	08
			-Study of permanent slides of Cardiac stomach, Thyroid <b>(Pr.)</b>	06
			-Study of permanent slides of small intestine, large intestine <b>(Pr.)</b>	08
PART II: SEM IV		<b>Unit 2:</b> Digestive System	1. Comparative anatomy of stomach <b>(Th.)</b>	04
			2. Dentition in mammals <b>(Th.)</b>	04
			1. Respiratory organs in fish <b>(Th.)</b>	03
			2. Respiratory organs in birds <b>(Th.)</b>	03
			3. Respiratory organs in mammals <b>(Th.)</b>	05
CC6/ZOOA	Animal Physiology: Controlling and Co-ordinating System	<b>Unit 6:</b> Endocrine System		
CC8/ZOOA	Comparative Anatomy of Vertebrates	<b>Unit 3:</b> Respiratory system		

			1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs <b>(Pr.)</b>	08
PART II: SEM III  <b>SEC-A-1</b>	Apiculture	<b>Unit 1:</b> Biology of Bees	1. Classification and biology of Honey Bees <b>(Th.)</b>	03
			2. Social organisation of Bee colony <b>(Th.)</b>	03
		<b>Unit 2:</b> Rearing of Bees	1. Artificial Bee rearing; Apiary <b>(Th.)</b>	04
			2. Beehives – Newton and Langstroth box <b>(Th.)</b>	04
			3. Bee pasturage <b>(Th.)</b>	03
			4. Selection of Bee species in Apiculture <b>(Th.)</b>	03
			5. Bee keeping equipment <b>(Th.)</b>	03
			6. Methods of extraction of Honey; (indigenous and modern) <b>(Th.)</b>	04
		<b>Unit 3:</b> Disease and Enemies	1. Bee disease and enemies <b>(Th.)</b>	12
			2. Control and preventive measure <b>(Th.)</b>	05
		<b>Unit 4:</b> Bee economy	1. Products of Apiculture industry and uses - Honey, Bees wax, Propolis, Pollen etc. <b>(Th.)</b>	10
		<b>Unit 5:</b> Entrepreneurship in Apiculture	1. Bee keeping industry – Recent efforts <b>(Th.)</b>	04
			2. Modern methods of employing artificial Beehives for cross pollination in horticulture gardens <b>(Th.)</b>	05
PART II: SEM IV  <b>SEC-B-1</b>	Aquarium Fish Keeping	<b>Unit 1:</b> Introduction to Aquarium Fish Keeping	1. The potential scope of aquarium fish industry as a cottage industry <b>(Th.)</b>	04
			2. Exotic and endemic species of Aquarium fishes <b>(Th.)</b>	03
		<b>Unit 2:</b> Biology of Aquarium Fishes	Common characteristics and sexual dimorphism of fresh water and marine aquarium fishes such as - 1. Guppy, Molly <b>(Th.)</b>	04

			2. Sword tail, Gold fish(Th.)	04
			3. Angel fish, blue morph(Th.)	04
			4. Anemone fish and Butterfly fish(Th.)	05
SEC-B-2	Medical Diagnostic Technique	Unit 1: Diagnostics Methods Used for Analysis of Blood	1. Blood composition (Th.)	03
			2. Differential Leucocyte Count (DLC) using Leishman's stain (Th.)	04
			3. Platelet Count using haemocytometer (Th.)	03
			4. Erythrocytic Sedimentation Rate (ESR) (Th.)	04
			5. Packed Cell Volume (PCV) (Th.)	03
		Unit 1: Diagnostics Methods Used for Urine culture	1. Urine analysis (Th.)	04
			2. Physical characteristics of urine (Th.)	03
			3. Abnormal constituents of urine (Th.)	04
			4. Urine culture (Th.)	05
PART III: SEM V  CC12/ZOOA	Principle of Genetics	Unit 7:Transposable Genetic Eleements	1. IS elements in bacteria (Th.)	03
			2. Ac-Ds elements in <i>Maize</i> (Th.)	03
			3. P elements in <i>Drosophila</i> (Th.)	02
			4. LINE, SINE, Alu elements in human (Th.)	04
PART III: SEM VI  CC14/ZOOA	Evolutionary Biology	Unit 3:	1. Geological time scale (Th.)	04
			2. Fossil: types of it (Th.)	03
			3. Role of fossils in age (Th.) determination by carbon dating (Th.)	03
			4. Evolution of horse (Th.)	03
PART III: SEM V		Unit 1: Introduction to Parasitology	1. Brief introduction of Parasitism (Th.)	02
			2. Parasitoid and Vectors (mechanical and biological) (Th.)	02
			3. Host parasite relationship (Th.)	02
			1. Study of morphology and life cycle of <i>Giardia intestinalis</i> (Th.)	02

<b>DSE-A-1</b>	Parasitology	<b>Unit 2:</b> Parasitic Protists	2. Study of prevalence and epidemiology of <i>Giardia intestinalis</i> (Th.)	02
			3. Study of pathogenicity and diagnosis <i>Giardia intestinalis</i> (Th.)	02
			4. Study of prophylaxis and treatment of <i>Giardia intestinalis</i> (Th.)	02
			5. Study of morphology and life cycle of <i>Trypanosoma gambiense</i> (Th.)	02
			6. Study of prevalence and epidemiology of <i>Trypanosoma gambiense</i> (Th.)	02
			7. Study of pathogenicity and diagnosis of <i>Trypanosoma gambiense</i> (Th.)	02
			8. Study of prophylaxis and treatment of <i>Trypanosoma gambiense</i> (Th.)	02
			9. Study of morphology and life cycle of <i>Leishmania donovani</i> (Th.)	02
			10. Study of prevalence and epidemiology of <i>Leishmania donovani</i> (Th.)	02
			11. Study of pathogenicity and diagnosis of <i>Leishmania donovani</i> (Th.)	02
			12. Study of prophylaxis and treatment of <i>Leishmania donovani</i> (Th.)	02
<b>DSE-B-1</b>	Endocrinology	<b>Unit 2:</b> Hypothalamo-Hypophyseal Axis	1. Structure and function of hypothalamus and hypothalamic nuclei(Th.)	06
			2. Regulation of neuroendocrine glands (Th.)	08
			3. Feedback mechanisms(Th.)	04
			4. Hypothalamo- Hypophyseal gonadal axis(Th.)	03
			5. Structure of pituitary gland(Th.)	04
			6. Hormones and their functions(Th.)	03
			7. Hypothalamo- Hypophyseal portal system(Th.)	03
<b>DSE-B-2</b>	Fish and Fisheries	<b>Unit 2:</b> Morphology and Physiology	1. Types of fins and their modification (Th.)	04
			2. Locomotion in fish (Th.)	05
			3. Hydrodynamics (Th.)	03
			4. Types of scales (Th.)	04

			5. Use of scales in classification and determination of age of fish <b>(Th.)</b>	03
			6. Gills and gas exchange <b>(Th.)</b>	05
			7. Swim bladder types <b>(Th.)</b>	04
			8. Roles of swim bladder in respiration <b>(Th.)</b>	04
			9. Buoyancy <b>(Th.)</b>	02
			10. Electric organ <b>(Th.)</b>	04
			11. Bioluminescence <b>(Th.)</b>	03
ZOOG CC2/GE2	Comparative anatomy and Developmental Biology	Unit 2: Digestive System	1. Stomach <b>(Th.)</b>	03
			2. Dentition <b>(Th.)</b>	04
ZOOG  CC3/GE3	Physiology and Biochemistry	Unit 6: Reproduction and Endocrine Glands	1. Physiology of male reproduction: Histology of testis <b>(Th.)</b>	04
			2. Hormonal control of spermatogenesis <b>(Th.)</b>	02
			3. Physiology of female reproduction: Histology of ovary <b>(Th.)</b>	03
			4. Hormonal control and menstrual cycle <b>(Th.)</b>	02
			5. Structure and function of pituitary <b>(Th.)</b>	03
			6. Structure and function of thyroid <b>(Th.)</b>	02
			7. Structure and function of pancreas <b>(Th.)</b>	02
			8. Structure and function of adrenal <b>(Th.)</b>	02
		Unit 7: Carbohydrate Metabolism	1. Glycolysis <b>(Th.)</b>	02
			2. Kreb's cycle <b>(Th.)</b>	02
			3. Glycogenesis <b>(Th.)</b>	02
			4. Electron Transport Chain <b>(Th.)</b>	02
ZOOG  CC4/GE4	Genetics and Evolutionary Biology	Unit 5: Origin of life	1. Chemical origin of life <b>(Th.)</b>	04
		Unit 6: Evolutionary theories	1. Lamarckism <b>(Th.)</b>	03
			2. Darwinism <b>(Th.)</b>	03
			3. Neo-Darwinism <b>(Th.)</b>	03
			4. Phylogeny of horse with diagram of limb and skull <b>(Pr.)</b>	12
			5. Study and identification of Darwin Finches from photograph <b>(Pr.)</b>	12

Teaching Plan

Department: Zoology  
Name of the teacher: Susmita Das

Session: 2021-22

Course type (CC/GE/SEC/ AECC/DSE)	Paper	Unit name	Sub-unit name	No. of classes
PART I: SEM I  CC1/ZOOA	Non-Chordates I: Protists to pseudocoelomate	Unit 4: Cnidaria	1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) (Th.)	02
			2. Metagenesis in <i>Obelia</i> (Th.)	03
			3. Polymorphism in Cnidaria (Th.)	05
			4. Corals and coral reef diversity (Th.)	03
			5. Role of symbiotic algae in reef formation (Th.)	03
			6. Conservation of coral and coral reefs (Th.)	03
		Unit 5: Ctenophora	1. General characteristics (Th.)	03
			2. Staining/mounting of any protozoa/helminth from gut of <i>Periplaneta</i> sp.(Pr.)	04
CC2/ZOOA	Molecular Biology	Unit 6: Gene Regulation	1. Regulation transcription in prokaryotes: <i>lac</i> operon and <i>trp</i> operon (Th.)	08
			2. Regulation transcription in eukaryotes: Activators, enhancers, silencer, repressors (Th.)	08
			3. miRNA mediated gene silencing (Th.)	03
			4. Epigenetic regulations: DNA methylation (Th.)	03
			5. Histone methylation (Th.)	03
			6. Histone acetylation (Th.)	03
		Unit 7: DNA Repair Mechanism	1. Types of DNA repair mechanisms (Th.)	02
			2. RecBCD model in prokaryotes (Th.)	02
			3. Nucleotide and base excision repair (Th.)	02
			4. SOS repair (Th.)	02
PART I: SEM II			1. General characteristics and classification up to classes (Ruppert and Barnes, 1994, 6 <sup>th</sup> Ed.) (Th.)	04
			2. Insect eye (Cockroach only)	04

CC3/ZOOA	Non-Chordates II: Coelomates	Unit 3: Arthropoda	(Th.)	
			3. Respiration in Prawn (Th.)	04
			4. Respiration in Cockroach (Th.)	04
			5. Metamorphosis in Lepidopteran insects (Th.)	10
			6. Social life in termite (Th.)	03
			1. b. Study of following specimens: Arthropods 1. <i>Limulus</i> , <i>Palaemon</i> (Pr.)	08
			2. <i>Balanus</i> , <i>Eupagurus</i> (Pr.)	08
			3. <i>Scolopendra</i> , <i>Peripatus</i> (Pr.)	08
			4. Silkworm – life history stages (Pr.)	07
			5. Termite – members of a colony (Pr.)	10
			6. Honey Bee – members of the colony (Pr.)	08
PART II: SEM III  CC6/ZOOA	Animal Physiology: Controlling and Co-ordinating System	Unit 6: Endocrine System	1. Histology and function of thyroid (Th.)	03
			2. Histology and function of pancreas (Th.)	03
			3. Histology and function of adrenal (Th.)	03
			4. Function of pituitary (Th.)	02
			5. Classification of hormones (Th.)	03
			6. Mechanism of hormone action (Th.)	02
			7. Signal transduction pathways for Steroidal and non-steroidal hormones (Th.)	03
			8. Hypothalamus (neuroendocrine gland) – principal nuclei involved in neuroendocrine control of anterior pituitary (Th.)	04
			9. Placental hormone (Th.)	02
			3. Study of permanent slides of -Mammalian (White Rat) Skin, Spinal cord (Pr.)	04
			-Study of permanent slides of Pancreas, Testis (Pr.)	06
			-Study of permanent slides of Ovary, Adrenal (Pr.)	06
			-Study of permanent slides of Lung, Pyloric stomach (Pr.)	08



			-Study of permanent slides of Cardiac stomach, Thyroid <b>(Pr.)</b>	06
			-Study of permanent slides of small intestine, large intestine <b>(Pr.)</b>	08
<b>CC7/ZOOA</b>	Fundamentals of Biochemistry	<b>Unit 3:</b> Proteins	1. Amino acids – structure and classification <b>(Th.)</b>	04
			2. General and electro chemical properties of a – amino acids <b>(Th.)</b>	04
			3. Physiological importance of essential and nonessential amino acids <b>(Th.)</b>	03
			4. Proteins bonds <b>(Th.)</b>	03
			5. Stabilizing protein structure <b>(Th.)</b>	04
			6. Levels of organisation	02
			7. Protein metabolism – Transamination and deamination <b>(Th.)</b>	04
			8. Urea cycle <b>(Th.)</b>	02
			9. Fate of C- skeleton of Glucogenic and Ketogenic amino acids <b>(Th.)</b>	04
PART II: SEM IV		<b>Unit 2:</b> Digestive System	1. Comparative anatomy of stomach <b>(Th.)</b>	04
			2. Dentition in mammals <b>(Th.)</b>	04
		<b>Unit 3:</b> Respiratory system	1. Respiratory organs in fish <b>(Th.)</b>	03
			2. Respiratory organs in birds <b>(Th.)</b>	03
			3. Respiratory organs in mammals <b>(Th.)</b>	05
			1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs <b>(Pr.)</b>	08
PART II: SEM III	Apiculture	<b>Unit 1:</b> Biology of Bees	1. Classification and biology of Honey Bees <b>(Th.)</b>	03
			2. Social organisation of Bee colony <b>(Th.)</b>	03
		<b>Unit 2:</b> Rearing of Bees	1. Artificial Bee rearing; Apiary <b>(Th.)</b>	04
			2. Beehives – Newton and Langstroth box <b>(Th.)</b>	04
			3. Bee pasturage <b>(Th.)</b>	03
			4. Selection of Bee species in Apiculture <b>(Th.)</b>	03

			5. Bee keeping equipment (Th.)	03
			6. Methods of extraction of Honey; (indigenous and modern) (Th.)	04
PART II: SEM IV  <b>SEC-B-1</b>	Aquarium Fish Keeping	<b>Unit 1:</b> Introduction to Aquarium Fish Keeping	1. The potential scope of aquarium fish industry as a cottage industry (Th.)	04
			2. Exotic and endemic species of Aquarium fishes(Th.)	03
		<b>Unit 2:</b> Biology of Aquarium Fishes	Common characteristics and sexual dimorphism of fresh water and marine aquarium fishes such as - 1. Guppy, Molly(Th.)	04
			2. Sword tail, Gold fish(Th.)	04
			3. Angel fish, blue morph(Th.)	04
			4. Anemone fish and Butterfly fish(Th.)	05
<b>SEC-B-2</b>	Medical Diagnostic Technique	<b>Unit 1:</b> Diagnostics Methods Used for Analysis of Blood	1. Blood composition (Th.)	03
			2. Differential Leucocyte Count (DLC) using Leishman's stain (Th.)	04
			3. Platelet Count using haemocytometer (Th.)	03
			4. Erythrocytic Sedimentation Rate (ESR) (Th.)	04
			5. Packed Cell Volume (PCV) (Th.)	03
		<b>Unit 1:</b> Diagnostics Methods Used for Urine culture	1. Urine analysis (Th.)	04
			2. Physical characteristics of urine (Th.)	03
			3. Abnormal constituents of urine (Th.)	04
			4. Urine culture (Th.)	05
PART III: SEM V  <b>CC11/ZOOA</b>	Ecology	<b>Unit 1:</b> Introduction to ecology	1. Autecology and synecology (Th.)	01
			2. Levels of organisation (Th.)	01
			3. Laws of limiting factors (Th.)	01
			4. Study of physical factors (Th.)	02
			5. The Biosphere (Th.)	02
		<b>Unit:4</b> Ecosystem	1. Types of ecosystems with an example in detail (Th.)	02

			2. Food chains: Detritus and grazing (Th.)	04
			3. Linear and Y- shaped food chains (Th.)	03
			4. Food web (Th.)	02
			5. Energy flow (Th.)	01
			6. Ecological pyramids and ecological efficiencies (Th.)	02
			7. Nitrogen cycle (Th.)	01
			2. Study of an aquatic ecosystem – - Salinity (Pr.)	04
			- Determination of pH (Pr.)	04
			- Dissolved Oxygen content (Winkler's method) (Pr.)	08
			- Chemical Oxygen demand and free CO <sub>2</sub> (Pr.)	04
CC12/ZOOA	Principle of Genetics	Unit 7: Transposable Genetic Elements	1. IS elements in bacteria (Th.)	03
			2. Ac-Ds elements in <i>Maize</i> (Th.)	03
			3. P elements in <i>Drosophila</i> (Th.)	02
			4. LINE, SINE, Alu elements in human (Th.)	04
			1. Chi – square analyses for genetic ratio test	22
PART III: SEM VI CC14/ZOOA	Evolutionary Biology	Unit 3:	1. Geological time scale (Th.)	04
			2. Fossil: types of it (Th.)	03
			3. Role of fossils in age (Th.) determination by carbon dating (Th.)	03
			4. Evolution of horse (Th.)	03
PART III: SEM V  DSE-A-1	Parasitology	Unit 1: Introduction to Parasitology	1. Brief introduction of Parasitism (Th.)	02
			2. Parasitoid and Vectors (mechanical and biological) (Th.)	02
			3. Host parasite relationship (Th.)	02
		Unit 2:	1. Study of morphology and life cycle of <i>Giardia intestinalis</i> (Th.)	02
			2. Study of prevalence and epidemiology of <i>Giardia intestinalis</i> (Th.)	02

		Parasitic Protists	3. Study of pathogenicity and diagnosis <i>Giardia intestinalis</i> (Th.)	02
			4. Study of prophylaxis and treatment of <i>Giardia intestinalis</i> (Th.)	02
			5. Study of morphology and life cycle of <i>Trypanosoma gambiense</i> (Th.)	02
			6. Study of prevalence and epidemiology of <i>Trypanosoma gambiense</i> (Th.)	02
			7. Study of pathogenicity and diagnosis of <i>Trypanosoma gambiense</i> (Th.)	02
			8. Study of prophylaxis and treatment of <i>Trypanosoma gambiense</i> (Th.)	02
			9. Study of morphology and life cycle of <i>Leishmania donovani</i> (Th.)	02
			10. Study of prevalence and epidemiology of <i>Leishmania donovani</i> (Th.)	02
			11. Study of pathogenicity and diagnosis of <i>Leishmania donovani</i> (Th.)	02
			12. Study of prophylaxis and treatment of <i>Leishmania donovani</i> (Th.)	02
DSE-B-1	Endocrinology	Unit 2: Hypothalamo-Hypophyseal Axis	1. Structure and function of hypothalamus and hypothalamic nuclei(Th.)	06
			2. Regulation of neuroendocrine glands (Th.)	08
			3. Feedback mechanisms(Th.)	04
			4. Hypothalamo- Hypophyseal gonadal axis(Th.)	03
			5. Structure of pituitary gland(Th.)	04
			6. Hormones and their functions(Th.)	03
			7. Hypothalamo- Hypophyseal portal system(Th.)	03
PART III: SEM VI	Fish and Fisheries	Unit 2: Morphology and Physiology	1. Types of fins and their modification (Th.)	04
			2. Locomotion in fish (Th.)	05
			3. Hydrodynamics (Th.)	03
			4. Types of scales (Th.)	04

<b>DSE-B-2</b>			5. Use of scales in classification and determination of age of fish <b>(Th.)</b>	03
			6. Gills and gas exchange <b>(Th.)</b>	05
			7. Swim bladder types <b>(Th.)</b>	04
			8. Roles of swim bladder in respiration <b>(Th.)</b>	04
			9. Buoyancy <b>(Th.)</b>	02
			10. Electric organ <b>(Th.)</b>	04
			11. Bioluminescence <b>(Th.)</b>	03
<b>ZOOG CC2/GE2</b>	Comparative anatomy and Developmental Biology	<b>Unit 2:</b> Digestive System	1. Stomach <b>(Th.)</b>	03
			2. Dentition <b>(Th.)</b>	04
<b>ZOOG  CC3/GE3</b>	Physiology and Biochemistry	<b>Unit 6:</b> Reproduction and Endocrine Glands	1. Physiology of male reproduction: Histology of testis <b>(Th.)</b>	04
			2. Hormonal control of spermatogenesis <b>(Th.)</b>	02
			3. Physiology of female reproduction: Histology of ovary <b>(Th.)</b>	03
			4. Hormonal control and menstrual cycle <b>(Th.)</b>	02
			5. Structure and function of pituitary <b>(Th.)</b>	03
			6. Structure and function of thyroid <b>(Th.)</b>	02
			7. Structure and function of pancreas <b>(Th.)</b>	02
			8. Structure and function of adrenal <b>(Th.)</b>	02
		<b>Unit 7:</b> Carbohydrate Metabolism	1. Glycolysis <b>(Th.)</b>	02
			2. Kreb's cycle <b>(Th.)</b>	02
			3. Glycogenesis <b>(Th.)</b>	02
			4. Electron Transport Chain <b>(Th.)</b>	02
<b>ZOOG  CC4/GE4</b>	Genetics and Evolutionary Biology	<b>Unit 5:</b> Origin of life	1. Chemical origin of life <b>(Th.)</b>	04
		<b>Unit 6:</b> Evolutionary theories	1. Lamarckism <b>(Th.)</b>	03
			2. Darwinism <b>(Th.)</b>	03
			3. Neo-Darwinism <b>(Th.)</b>	03
			4. Phylogeny of horse with diagram of limb and skull <b>(Pr.)</b>	12
			5. Study and identification of Darwin Finches from photograph <b>(Pr.)</b>	12

### Teaching Plan

Session: 2018-2019

Name of the teacher: **MOWMITA SAHA**

Course Type(CC/GE/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC5	Agnatha	Agnatha		3
CC	CC5	Amphibia	Amphibia		6
CC	CC8	Urinogenital system	Urinogenital system		5
CC	CC8	Nervous system and sense organs	Nervous system and sense organs		7
CC	CC12	Linkage,crossing over and linkage mapping	Linkage,crossing over and linkage mapping		8
CC	CC14	Lamarckism,Darwinism and Neo Darwinism	Lamarckism,Darwinism and Neo Darwinism		5
CC	CC14	Origin and evolution of man,unique hominid characteristics	Origin and evolution of man,unique hominid characteristics		3
DSE	DSE A1	Parasitic platyhelminthes	Parasitic platyhelminthes		6
DSE	DSE B1	Introduction to endocrinology	Introduction to endocrinology		6
DSE	DSE B2	Fisheries	Fisheries		9
SEC	SEC A1	Diseases and enemies	Diseases and enemies		6
SEC	SEC A1	Bee economy	Bee economy		2
SEC	SEC B1	Food and feeding of aquarium fishes	Food and feeding of aquarium fishes		7
SEC	SEC B1	Fish transpotation	Fish transpotation		4
SEC	SEC B1	Maintenance of aquarium	Maintenance of aquarium		4
GE	CC1	Platyhelminthes	Platyhelminthes		3
GE	CC1	Nemathelminthes	Nemathelminthes		3
GE	CC1	Annelida	Annelida		4
GE	CC1	Arthropoda	Arthropoda		5
GE	CC2	Circulatory system	Circulatory system		6
GE	CC2	Urinogenital system	Urinogenital system		5

Session: 2019-2020

Name of the teacher: MOWMITA SAHA

<b>Course Type(CC/GE/ SEC/AECC/ DSE)</b>	<b>Paper</b>	<b>Unit name</b>	<b>Sub-unit name</b>	<b>Month</b>	<b>No. of classes</b>
CC	CC1P	Demonstration of lampbrush and polytene chromosome	Demonstration of lampbrush and polytene chromosome		2
CC	CC1P	Agarose gel electrophoresis for dna	Agarose gel electrophoresis for dna		2
CC	CC3	Onychophora	Onychophora		3
CC	CC4P	Barr body	Barr body		3
CC	CC4P	DNA by Feulgen, cell viability	DNA by Feulgen, cell viability		4
CC	CC5	Agnatha	Agnatha		3
CC	CC5	Amphibia	Amphibia		6
CC	CC8	Urogenital system	Urogenital system		5
CC	CC8	Nervous system and sense organs	Nervous system and sense organs		7
CC	CC8P	Placoid, cycloid, ctenoid scales	Placoid, cycloid, ctenoid scales		2
CC	CC8P	Skeleton of toad, pigeon, guinea pig	Skeleton of toad, pigeon, guinea pig		5
CC	CC8P	Comparative study of heart and brain	Comparative study of heart and brain		4
CC	CC12	Linkage, crossing over and linkage mapping	Linkage, crossing over and linkage mapping		8
CC	CC14	Lamarckism, Darwinism and Neo Darwinism	Lamarckism, Darwinism and Neo Darwinism		5
CC	CC14	Origin and evolution of man, unique hominid characteristics	Origin and evolution of man, unique hominid characteristics		3
DSE	DSEA 1	Parasitic platyhelminthes	Parasitic platyhelminthes		6
DSE	DSEB 1	Introduction to endocrinology	Introduction to endocrinology		6
DSE	DSEB 2	Fisheries	Fisheries		9
SEC	SECA 1	Diseases and enemies	Diseases and enemies		6
SEC	SECA 1	Bee economy	Bee economy		2
SEC	SECB 1	Food and feeding of aquarium fishes	Food and feeding of aquarium fishes		7
SEC	SECB 1	Fish transportation	Fish transportation		4
SEC	SECB 1	Maintenance of aquarium	Maintenance of aquarium		4
GE	CC1	Platyhelminthes	Platyhelminthes		3
GE	CC1P	Identification of specimen	Identification of specimen		5

GE	CC1P	Study of anatomy of digestive system, salivary gland, mouth parts and female reproductive system of cockroach	Study of anatomy of digestive system, salivary gland, mouth parts and female reproductive system of cockroach		5
GE	CC1	Nemathelminthes	Nemathelminthes		3
GE	CC1	Annelida	Annelida		4
GE	CC1	Arthropoda	Arthropoda		5
GE	CC2	Circulatory system	Circulatory system		6
GE	CC2	Urinogenital system	Urinogenital system		5
CC	CC2P	Different types of placenta	Different types of placenta		2
CC	CC2P	Chick embryo	Chick embryo		2

Session: 2020-2021

Name of the teacher: MOWMITA SAHA

Course Type(CC/G E/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1P	Demonstration of lampbrush and polytene chromosome	Demonstration of lampbrush and polytene chromosome		2
CC	CC1P	Agarose gel electrophoresis for dna	Agarose gel electrophoresis for dna		2
CC	CC3	Onychophora	Onychophora		3
CC	CC4P	Barr body	Barr body		3
CC	CC4P	DNA by Feulgen, cell viability	DNA by Feulgen, cell viability		4
CC	CC5	Agnatha	Agnatha		3
CC	CC5	Amphibia	Amphibia		6
CC	CC8	Urinogenital system	Urinogenital system		5
CC	CC8	Nervous system and sense organs	Nervous system and sense organs		7
CC	CC8P	Placoid, cycloid, ctenoid scales	Placoid, cycloid, ctenoid scales		2
CC	CC8P	Skeleton of toad pigeon guinea pig	Skeleton of toad pigeon guinea pig		5
CC	CC8P	Comparative study of heart and brain	Comparative study of heart and brain		4
CC	CC12	Linkage, crossing over and linkage mapping	Linkage, crossing over and linkage mapping		8
CC	CC14	Lamarckism, Darwinism and Neo Darwinism	Lamarckism, Darwinism and Neo Darwinism		5
CC	CC14	Origin and evolution of man, unique hominid characteristics	Origin and evolution of man, unique hominid characteristics		3
DSE	DSEA 1	Parasitic platyhelminthes	Parasitic platyhelminthes		6
DSE	DSEB 1	Introduction to endocrinology	Introduction to endocrinology		6



DSE	DSEB 2	Fisheries	Fisheries		9
SEC	SECA 1	Diseases and enemies	Diseases and enemies		6
SEC	SECA 1	Bee economy	Bee economy		2
SEC	SECB 1	Food and feeding of aquarium fishes	Food and feeding of aquarium fishes		7
SEC	SECB 1	Fish transpotation	Fish transpotation		4
SEC	SECB 1	Maintenance of aquarium	Maintenance of aquarium		4
GE	CC1	Platyhelminthes	Platyhelminthes		3
GE	CC1P	Identification of specimen	Identification of specimen		5
GE	CC1P	Study of anatomy of digedtivesystem,salivary gland,mouth parts and female reproductive system of cockroach	Study of anatomy of digedtivesystem,salivary gland,mouth parts and female reproductive system of cockroach		5
GE	CC1	Nemathelminthes	Nemathelminthes		3
GE	CC1	Annelida	Annelida		4
GE	CC1	Arthropoda	Arthropoda		5
GE	CC2	Circulatory system	Circulatory system		6
GE	CC2	Urinogenital system	Urinogenital system		5
CC	CC2P	Different types of placenta	Different types of placenta		2
CC	CC2P	Chick embryo	Chick embryo		2

Session: 2021-2022

Name of the teacher: MOWMITA SAHA

Course Type(CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC	CC1P	Demonstration of lampbrush and polytene chromosome	Demonstration of lampbrush and polytene chromosome		2
CC	CC1P	Agarose gel electrophoresis for dna	Agarose gel electrophoresis for dna		2
CC	CC3	Onychophora	Onychophora		3
CC	CC4P	Barr body	Barr body		3
CC	CC4P	DNA by Feulgen,cell viability	DNA by Feulgen,cell viability		4
CC	CC5	Agnatha	Agnatha		3
CC	CC5	Amphibia	Amphibia		6
CC	CC8	Urinogenital system	Urinogenital system		5
CC	CC8	Nervous system and sense organs	Nervous system and sense organs		7
CC	CC8P	Placoid,cycloid,ctenoid	Placoid,cycloid,cte		2

		scales	noid scales		
CC	CC8P	Skeleton of toad pigeon guineapig	Skeleton of toad pigeon guineapig		5
CC	CC8P	Comparative study of heart and brain	Comparative study of heart and brain		4
CC	CC12	Linkage,crossing over and linkage mapping	Linkage,crossing over and linkage mapping		8
CC	CC14	Lamarckism,Darwinism and Neo Darwinism	Lamarckism,Darwinism and Neo Darwinism		5
CC	CC14	Origin and evolution of man,unique hominid characteristics	Origin and evolution of man,unique hominid characteristics		3
DSE	DSEA1	Parasitic platyhelminthes	Parasitic platyhelminthes		6
DSE	DSEB1	Introduction to endocrinology	Introduction to endocrinology		6
DSE	DSEB2	Fisheries	Fisheries		9
SEC	SECA1	Diseases and enemies	Diseases and enemies		6
SEC	SECA1	Bee economy	Bee economy		2
SEC	SECB1	Food and feeding of aquarium fishes	Food and feeding of aquarium fishes		7
SEC	SECB1	Fish transpotation	Fish transpotation		4
SEC	SECB1	Maintenance of aquarium	Maintenance of aquarium		4
GE	CC1	Platyhelminthes	Platyhelminthes		3
GE	CC1P	Identification of specimen	Identification of specimen		5
GE	CC1P	Study of anatomy of digedtivesystem,salivaryg land,mouth parts and female reproductive system of cockroach	Study of anatomy of digedtivesystem,salivarygland,mouth parts and female reproductive system of cockroach		5
GE	CC1	Nemathelminthes	Nemathelminthes		3
GE	CC1	Annelida	Annelida		4
GE	CC1	Arthropoda	Arthropoda		5
GE	CC2	Circulatory system	Circulatory system		6
GE	CC2	Urinogenital system	Urinogenital system		5
CC	CC2P	Different types of placenta	Different types of placenta		2
CC	CC2P	Chick embryo	Chick embryo		2

### Teaching Plan

**Department: Zoology**

**Session:2018-19**

**Name of the teacher: Pradip Kumar Pahari**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4
			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Introduction	Jan-Jun	2
			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
			Cytoskeleton		5
Paper III (1+1+1 system, Part II, ZOOA)	Systematics, Evolutionary Biology & Animal Behaviour	Systematics	Taxonomy	July-Dec	2
			Systematics		2
	Ecology, Biodiversity and Conservation	Ecology	Concept of Ecosystem		4
			Wetland as ecosystem service provider		2
Paper IV (1+1+1 system, Part II, ZOOA)	Practical	Ecological methods	estimation of pH in water and soil samples		2
			Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water		2
			Study of micro		4

			arthropods of water and soil samples		
			Zoo-plankton count by standard methods		4
		Systematic & Evolutionary Biology	Key making with the specimens		5
		Qualitative tests	for Carbohydrate		6
			Protein		6
			fat, uric acid and urea		6
			Counting of cockroach haemocytes		4
Paper IV (1+1+1, Part III, ZOOG)	Applied Zoology	Aquaculture	Aquaculture	July-Dec	10
	Laboratory course	Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water	Determination of dissolved O <sub>2</sub> , free CO <sub>2</sub> of water		4
		estimation of pH in water	estimation of pH in water		2

**Department: Zoology**

**Session:2019-2020**

**Name of the teacher: Pradip Kumar Pahari**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4
			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Introduction	Jan-Jun	2

			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
CC5	ZOOA-CC3-5-TH	Chordata	Introduction to Chordates	July-Dec	2
			Protochordata		5
CC6	ZOOA-CC3-5-P		Dissection of brain and pituitary – <i>ex situ</i> , digestive and Urino-genital system of <i>Tilapia</i>		14
			<i>Pecten from Fowl head</i>		4
	ZOOA-CC3-6-P	Lab	Recording of cardiac and simple muscle twitch with electrical stimulation		4
			Microtomy		6
CC7	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-P	Lab	Study of placoid, cycloid and ctenoid scales		4
			Study of disarticulated skeleton		8
CC9	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
PAPER 7, (1+1+1 system, Part III ZOOA)	Practical	Immunology	Determination of human blood group	July-Dec	2
			Histology of primary and secondary lymphoid organs		4
		Molecular Biology	Paper Chromatography, TLC, Quantitative estimation of DNA		8
		Parasitology	Study of gut contents		4

		& Microbiology	of cockroach		
PAPER 8, (1+1+1 system, Part III ZOOA)	Practical	Instrumentation	Instrumentation		8
		Environmental audit	Environmental audit		6

**Department: Zoology**

**Session:2020-2021**

**Name of the teacher: Pradip Kumar Pahari**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4
			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Introduction	Jan-Jun	2
			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
CC5	ZOOA-CC3-5-TH	Chordata	Introduction to Chordates	July-Dec	2
			Protochordata		5
CC6	ZOOA-CC3-5-P		Dissection of brain and pituitary – <i>ex situ</i> , digestive and Urino-genital system of <i>Tilapia</i>		14
			<i>Pecten from Fowl head</i>		4
	ZOOA-CC3-6-P	Lab	Recording of cardiac and simple muscle twitch with electrical stimulation		4
			Microtomy		6

CC7	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-P	Lab	Study of placoid, cycloid and ctenoid scales		4
			Study of disarticulated skeleton		8
CC9	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4
			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Introduction	Jan-Jun	2
			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
CC5	ZOOA-CC3-5-TH	Chordata	Introduction to Chordates	July-Dec	2
			Protochordata		5
CC6	ZOOA-CC3-5-P		Dissection of brain and pituitary – <i>ex situ</i> , digestive and Urino-genital system of <i>Tilapia</i>		14
CC11	ZOOA-CC5-11-TH	Ecology	Introduction to Ecology	July-Dec	4
	ZOOA-CC5-11-	Lab	Study of an aquatic		16

	P		ecosystem		
DSEA1	ZOOA-DSE(A)-5-1-P	Parasitology Lab	Study of monogenea from the gills of fresh/marine fish		
			Study of nematode/cestode parasites from the intestines of Poultry bird		
DSEB1	ZOOA-DSE(B)-5-1-P	Endocrinology Lab	Dissect and display of Endocrine glands in laboratory bred rat.		
CC14	ZOOA-CC6-14-TH	Evolutionary Biology	Origin of Life (Chemical basis), RNA world hypothesis:		6
			Historical review of Evolutionary concepts		4
DSE A1	ZOOA-DSE(A)-6-1-TH	Animal Cell Biotechnology	Application in Health		4
	OOA-DSE(A)-6-1-P	Lab	Packing and sterilization		6
			Preparation of culture media		4
DSE B2	ZOOA-DSE(B)-6-2-P	Lab	Morphometric and meristic characters of fishes		4
			Study of air breathing organs		8
			Water quality criteria for Aquaculture		6

**Department: Zoology**

**Session:2021-2022**

**Name of the teacher: Pradip Kumar Pahari**

Course type (CC/GE/SEC/AECC/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4
			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-	NonChordates	Introduction	Jan-Jun	2



	TH	II Coelomates			
			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
CC5	ZOOA-CC3-5-TH	Chordata	Introduction to Chordates	July-Dec	2
			Protochordata		5
CC6	ZOOA-CC3-5-P		Dissection of brain and pituitary – <i>ex situ</i> , digestive and Urino-genital system of <i>Tilapia</i>		14
			<i>Pecten from Fowl head</i>		4
	ZOOA-CC3-6-P	Lab	Recording of cardiac and simple muscle twitch with electrical stimulation		4
			Microtomy		6
CC7	ZOOA-CC-7-3-P	Lab	Qualitative tests for carbohydrates, proteins and lipids		8
			Qualitative estimation of Urea & Uric acid		4
CC8	ZOOA-CC4-8-P	Lab	Study of placoid, cycloid and ctenoid scales		4
			Study of disarticulated skeleton		8
CC9	ZOOA-CC4-9-P	Lab	Determination of ABO Blood group		2
			Estimation of haemoglobin using Sahli's haemoglobin meter		4
			Preparation of haemin crystals and haemochromogen crystals		8
CC1	ZOOA-CC-1-1-P	Protists to Pseudocoelomates	Study of whole mount of <i>Euglena</i> , <i>Amoeba</i> and <i>Paramoecium</i>	July- Dec	6
	ZOOA-CC1-1-TH	Non-Chordates I	Basics of Animal Classification		8
			Protista and Metazoa		
CC2	ZOOA-CC1-2-P	Molecular Biology	Isolation and quantification of genomic DNA from goat liver.		4

			Agarose gel electrophoresis for DNA.		4
CC3	ZOOA-CC2-3-TH	NonChordates II Coelomates	Introduction	Jan-Jun	2
			Annelida		5
	ZOOA-CC-2-3-P	Non-Chordates II Lab	Anatomy study		20
CC4	ZOOA-CC2-4-P	Cell Biology	Preparation of permanent slide		8
CC5	ZOOA-CC3-5-TH	Chordata	Introduction to Chordates	July-Dec	2
			Protochordata		5
CC6	ZOOA-CC3-5-P		Dissection of brain and pituitary – <i>ex situ</i> , digestive and Urino-genital system of <i>Tilapia</i>		14
CC11	ZOOA-CC5-11-TH	Ecology	Introduction to Ecology	July-Dec	4
	ZOOA-CC5-11-P	Lab	Study of an aquatic ecosystem		16
DSEA1	ZOOA-DSE(A)-5-1-P	Parasitology Lab	Study of monogenea from the gills of fresh/marine fish		
			Study of nematode/cestode parasites from the intestines of Poultry bird		
DSEB1	ZOOA-DSE(B)-5-1-P	Endocrinology Lab	Dissect and display of Endocrine glands in laboratory bred rat.		
CC14	ZOOA-CC6-14-TH	Evolutionary Biology	Origin of Life (Chemical basis), RNA world hypothesis:		6
			Historical review of Evolutionary concepts		4
DSE A1	ZOOA-DSE(A)-6-1-TH	Animal Cell Biotechnology	Application in Health		4
	OOA-DSE(A)-6-1-P	Lab	Packing and sterilization		6
			Preparation of culture media		4
DSE B2	ZOOA-DSE(B)-6-2-P	Lab	Morphometric and meristic characters of fishes		4
			Study of air breathing organs		8
			Water quality criteria for Aquaculture		6

### Teaching Plan

Department: Zoology

Session:2018-19

Name of the teacher: Dr.Arпита Rakshit

Semester	Course type (CC/GE/SEC/AEC/C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Sem I Honours	CC 1	ZOOA - CC1-1-TH	Non-Chordates I: Protists to Pseudocoelomates	UNIT 1: Basics of Animal classification: Definitions: Classification, Systematics and Taxonomy; Taxonomic Hierarchy, Taxonomic types, Codes of Zoological Nomenclature; Principle of priority; Synonymy and Homonymy; Concept of classification – three kingdom concept of Carl Woese, 1977 and five kingdom concept of Whittaker, 1969	July-Dec	4
				UNIT 3: Porifera General characteristics and Classification up to classes (Ruppert and Barnes, 1994, 6th Ed.); Canal system and spicules in sponges		6
	CC 2	ZOOA -CC-1-2-TH	Molecular Biology	UNIT 5: Post transcriptional Modifications and Processing of Eukaryotic RNA Capping and Poly A tail formation in mRNA; Split genes: concept of introns and exons, splicing mechanism, alternative splicing and RNA editing		8
				UNIT 6: Gene Regulation: Regulation of Transcription in prokaryotes: <i>lac</i> operon and <i>trp</i> operon; Regulation of Transcription in eukaryotes: Activators, enhancers, silencer, repressors, miRNA mediated gene silencing. Epigenetic Regulation: DNA Methylation, Histone Methylation & Acetylation.		7
				UNIT 7: DNA repair mechanism: Types of DNA repair mechanisms, RecBCD model in prokaryotes, nucleotide and base excision repair, SOS repair		2
		ZOOA -CC1-2-PR	Lab	1. Demonstration of polytene and lampbrush chromosome from photograph		4
				3. Agarose gel electrophoresis for DNA.		4
				4. Histological staining of DNA and RNA in prepared slides		6
Sem II Honours	CC 4	ZOOA -CC2-4-TH	Cell Biology	UNIT 5: Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus; Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome)	Jan-Jun	8
				UNIT 6: Cell cycle: Cell cycle and its regulation, Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras. Process of Proto-oncogene activation		8
		ZOOA -CC-2-4-PR	Lab	1.Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis		6

				2. Study of various stages of meiosis from grasshopper testis		6
				3. Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek cells		2
				4. Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining		6
Sem I General	GE 1	ZOOG -CC-1- TH	Chordata	UNIT 13: Amphibia: General features and Classification up to orders (Young, 1981); Parental care	July- Dec	4
				UNIT 14: Reptilia General features and Classification up to orders (Young, 1981); Poisonous and non-poisonous snakes, Biting mechanism		4
		ZOOG -CC-1- PR	Lab	Identification with reasons of the following specimens: <i>Amoeba, Euglena, Paramecium, Sycon, Obelia, Aurelia, Metridium, Taenia solium, Ascaris lumbricoides</i> (Male and female), <i>Aphrodite, Nereis, Hirudinaria, Palaemon, Cancer, Limulus, Apis, Chiton, Dentalium, Unio, Sepia, Octopus, Echinus, Cucumaria</i> and <i>Antedon, Balanoglossus, Branchiostoma, Petromyzon, Torpedo, Labeorohita, Exocoetus, Salamandra, Hyla, Chelone, Hemidactylus, Chamaeleon, Draco, Vipera, Naja, Bat, Funambulus</i> 2. Key for Identification of poisonous and non-poisonous snakes An “animal album” containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to different sets of students for this purpose		14
Sem II General	GE 2	ZOOG -CC2- TH	Comparative Anatomy & Developmental Biology	UNIT 6: Early Embryonic Development: Gametogenesis: Spermatogenesis and oogenesis with respect to mammals. Fertilization: Sea-Urchin; Early development of frog; structure of mature egg and its membranes, patterns of cleavage, fate map, up to formation of gastrula; types of morphogenetic movements; Fate of germ layers	Jan- June	14
		ZOOG -CC2- PR	Lab	3. Study of the different types of placenta-histological sections through photomicrographs. 4. Developmental stages of chick embryo: 24 Hrs., 48 Hrs, 72 Hrs., 96 Hrs.		10
Part II Honours	Paper III	UNIT 1:	Group A: Systematics	5. Biological Species concept, Subspecies, Polytypic species, Sibling species and Ring species	July- Dec	4
				6. Isolation and its role in speciation (pre mating and post mating)		2
				7. Modes of speciation – Sympatric, Allopatric and Parapatric		6
				8. Type concept – names of primary and secondary types, their definitions and applications		6
				9. Basic principle and use of DNA bar coding in species identification		6

			Group B: Evolution and Adaptation	4. Genetic drift, founder effect and population bottleneck		6
				11. Adaptive radiation with special reference to Darwin's finches		2
		UNIT 2	Group B: Biodiversity and Conservation	1.Types of biodiversity, biodiversity and human welfare, mega diversity zones and biodiversity hot spots with special reference to India		6
				2. Concept of wildlife, wildlife heritage of India, reasons for wildlife depletion in Indian context		6
				3. Concept of threatened fauna – IUCN categories.		2
				8. Environmental audit and impact assessment		2
				9. Role of NGO's in wildlife conservation in India		2
	Paper IV	UNIT 1	Group A: Animal Physiology	6.Temperature regulation in cold desert		4
				7. Physiology of vision in human, compound eyes and image formation in insects		4
			Group B: Biochemistry	4.Beta-oxidation of fatty acids – a. Palmitic acid {saturated (C 16:0)} b. Linoleic acid {unsaturated (C 18:2)}		6
				5. Integration: Krebs cycle, Oxidative phosphorylation and Electron transport chain		6
		UNIT 2	PRACTICAL	<b>Systematic &amp; Evolutionary Biology: (10+10)</b> General discussion, distinguishing characters and classification of respective Phylum should be taken into consideration. In Laboratory Note Book scheme of classification of all Phylum should be written before identification Key making with the specimens both from non-chordate (e.g., insects) and chordates (e.g., fishes) Identification with reasons of the following Museum specimens should be done <b>Non-chordates:</b> <i>Elphidium, Scypha(Syn, Sycon), Neptune's cup, Aurelia, Pennatula, Sea anemone, Fasciola, Chaetopterus, Beroe, Madrepora, Nereis, Aphrodite, Squilla, Hippa, Eupagurus, King crab, Peripatus, Belostoma, Achatina, Chiton, Patella, Aplysia, Mytilus, Sepia, Loligo, Nautilus, Asterias, Sea-urchin, Sea-lily, Balanoglossus</i> <b>Chordates:</b> <i>Branchiostoma, Ascidia, Petromyzon, Myxine, Torpedo, Sphyrna, Hippocampus, Mystus, Necturus, Ichthyophis, Tylotriton, Cryptobranchus, Hyla, Chameleon, Gekko, Vipera, Calotes, Mabuya, Varanus, Naja, Hydrophis, Mega Chiroptera</i>		14
				<b>Animal Physiology and Biochemistry:</b> 1. Quantitative estimation of protein by modified Lowry's colorimetric method 3. Counting of cockroach haemocytes using haemocytometer 4. Preparation of Normal, molar and standard solutions, phosphate buffers, serial dilutions		10

Department: Zoology

Session:2019-2020

Name of the teacher: Dr.Arпита Rakshit

Semester	Course type (CC/GE/SEC/AEC/C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Sem I Honours	CC 1	ZOOA - CC1-1-TH	Non-Chordates I: Protists to Pseudocolumates	UNIT 1: Basics of Animal classification: Definitions: Classification, Systematics and Taxonomy; Taxonomic Hierarchy, Taxonomic types Codes of Zoological Nomenclature; Principle of priority; Synonymy and Homonymy; Concept of classification – three kingdom concept of Carl Woese, 1977 and five kingdom concept of Whittaker, 1969	July-Dec	4
				UNIT 3: Porifera General characteristics and Classification up to classes (Ruppert and Barnes, 1994, 6th Ed.); Canal system and spicules in sponges		6
	CC 2	ZOOA -CC-1-2-TH	Molecular Biology	UNIT 6: Gene Regulation: Regulation of Transcription in prokaryotes: <i>lac</i> operon and <i>trp</i> operon; Regulation of Transcription in eukaryotes: Activators, enhancers, silencer, repressors, miRNA mediated gene silencing. Epigenetic Regulation: DNA Methylation, Histone Methylation & Acetylation.		7
				UNIT 7: DNA repair mechanism: Types of DNA repair mechanisms, RecBCD model in prokaryotes, nucleotide and base excision repair, SOS repair		2
		ZOOA -CC1-2-PR	Lab	1. Demonstration of polytene and lampbrush chromosome from photograph		4
				3. Agarose gel electrophoresis for DNA.		4
				4. Histological staining of DNA and RNA in prepared slides		6
Sem II Honours	CC 4	ZOOA -CC2-4-TH	Cell Biology	UNIT 5: Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus; Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome)	Jan-Jun	8
				UNIT 6: Cell cycle: Cell cycle and its regulation, Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras. Process of Proto-oncogene activation		8
		ZOOA -CC-2-4-PR	Lab	1.Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis		6
				2. Study of various stages of meiosis from grasshopper testis		6
				3. Preparation of permanent slide to show the		2

				presence of Barr body in human female blood cells/cheek cells		6
				4. Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining		
Sem III Hono urs	CC 5	ZOOA -CC3- 5-TH	Chordata	UNIT 1: Introduction to Chordates: General characteristics and outline classification of Phylum Chordata (Young, 1981)	July-Dec	2
				UNIT 2: Potochordata: General characteristics and classification of sub-phylum Urochordata and Cephalochordata up to Classes (Young, 1981). Metamorphosis in <i>Ascidia</i> . Chordate Features, structure of pharynx and feeding in <i>Branchiostoma</i>		7
				UNIT 6: Reptilia: General characteristics and classification up to living Orders (Young, 1981); Poison apparatus and Biting mechanism in Snake. Poisonous & Non-Poisonous snake.		8
		ZOOA -CC3- 5-PR	Chordata Lab	Identification with reasons: d) Amphibia: <i>Necturus</i> , <i>Bufo</i> ( <i>Duttaphrynus</i> ) <i>melanostictus</i> , <i>Rana</i> ( <i>Hoplobatrachus</i> ) <i>tigerinus</i> , <i>Hyla</i> , <i>Tylototriton</i> , Axolotl larva e) Reptilia: <i>Chelone</i> , <i>Trionyx</i> , <i>Hemidactylus</i> , <i>Varanus</i> , <i>Calotes</i> , <i>Chamaeleon</i> , <i>Draco</i> , <i>Vipera</i> , <i>Naja</i> , <i>Hydrophis</i> , f) Mammalia: Bat (Insectivorous and Frugivorous), <i>Funambulus</i> (Indian Palm squirrel)		14
				Power point presentation on study of habit, habitat or behaviour of any one animal by student – for internal assessment only		4
	CC7	ZOOA -CC3- 7-TH	Fundamen tals Biochemis try	Unit 2: Lipids: Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Tri acylglycerols, Phospholipids, Sphingolipid, Glycolipids, Steroids, Eicosanoids and terpinoids. Lipid metabolism: $\beta$ -oxidation of fatty acids - a. Palmitic acid {saturated (C 16:0)}, b. Linoleic acid {unsaturated (C 18:2)}; Fatty acid biosynthesis		7
				UNIT 3: Proteins: Amino acids: Structure, Classification, General and Electro chemical properties of $\alpha$ -amino acids; Physiological importance of essential and non-essential amino acids, Proteins Bonds stabilizing protein structure; Levels of organization; Protein metabolism: Transamination, Deamination, Urea cycle, Fate of C-skeleton of Glucogenic and Ketogenic amino acids		
		ZOOA -CC-7- 3-PR	Lab	3. Paper chromatography of amino acids.		4
				4. Quantitative estimation of water soluble proteins following Lowry Method		6
Sem IV	CC8	ZOOA -CC4-	Comparati ve	UNIT 1: Integumentary System: Structure, function and derivatives of integument in	Jan-Jun	10

Honours		8-TH	Anatomy of Vertebrates	amphibian, birds and mammals		
		ZOOA-CC4-8-P	Lab	1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs		4
				2. Study of disarticulated skeleton of toad, Pigeon, Guinea pig (limb bones, vertebrae, limb and girdle)		12
				3. Comparative study of heart and brain, with the help of model/picture		4
	CC9	ZOOA-CC4-9-TH	Animal Physiology	UNIT 5: Thermoregulation & Osmoregulation: Thermal regulation in camel and polar bear, Osmoregulation in aquatic vertebrates		6
		ZOOA-CC4-9-P	Lab	5. Identification of blood cells from cockroach haemolymph		4
				6. Demonstration of blood pressure by digital meter		4
	CC10	ZOOA-CC4-10-TH	Immunology	UNIT 5: Structure and functions of MHC molecules. Structure of T cell Receptor and its signalling, T cell development & selection		6
				UNIT 6: Types, properties and functions of cytokines		3
				UNIT 7: Components and pathways of complement activation.		5
		ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs (by picture).		2
				2. Histological study of Bursa fabricius, spleen, thymus and lymph nodes through slides/photographs		6
				3. Demonstration of ELISA		4
Sem III General	GE 3			UNIT 2: Digestion: Physiology of digestion in the alimentary canal; Absorption of carbohydrates, proteins, lipids		6
				UNIT 9 :Protein Metabolism: Transamination, Deamination, Urea cycle		4
Sem IV General	GE 4			UNIT 1: Mendelian Genetics and its extension: Principles of Inheritance, Chromosome theory of inheritance, Incomplete dominance and codominance, Multiple alleles, lethal alleles, sex linked inheritance in <i>Drosophila</i> (White eye locus) & Human (Thalassemia).		10
				UNIT 2: Linkage, Crossing Over: Linkage and crossing over, Complete & Incomplete Linkage, Recombination frequency as a measure of linkage intensity. Holiday Model		8
Part III Honours	Paper V	UNIT 1	Molecular Biology	<b>Genome analysis</b> a. DNA sequencing: Principle of Dideoxy sequencing b. Restriction enzyme: Types and use in gene cloning c. Cloning vectors: Characteristic features, Plasmid vector (pBR322, pUC19), Cosmid, phage vector, Concept of expression and Shuttle vector		18



				d. Construction of genomic DNA and cDNA libraries e. PCR: Basic Principle. Use of Allele specific RT-PCT f. DNA fingerprinting: Principle of RFLP, mini-satellites, microsatellites, RAPD and its uses g. Blot Technique: Southern Blot and Northern Blot		
				5. <b>Recombination:</b> Homologous recombination , Holliday Model of recombination, definition and example of site specific and transpositional recombination; Gene conversion		8
				6. <b>DNA repair mechanism:</b> Base and nucleotide excision repair in bacteria, Mismatch repair, SOS repair		8
		Unit 2	Group A: Parasitology and Microbiology	6.Characterization and classification of bacteria (on the basis of staining methods)		4
				7. Techniques of microorganism culture (sterilization reproduction and growth, maintenance and preservation of pure cultures), Control of micro-organisms		4
				8. Microbes in relation to common diseases of man and control (Cholera and Shigella)		4
			Group B: Immunology	4.Cytokines, adjuvants – complete and incomplete		4
				5. Complement proteins – pathways and activation (classical, alternative and lectin mediated pathway, MAC formation		6
	Paper VI	Unit 1	Animal Biotechnology and Applied Zoology	3. <b>Animal cell culture</b> (i ) Cell culture types (ii) Cell culture technology (suspended and adherent culture) (iii) Cell culture media (RPMI-1640,M-199 and its components)		5
				4. <b>Gene therapy:</b> Principle: Ex-vivo & In-vivo gene therapy. Strategies, Viral and non-viral vectors, antisense therapy.		6
	Paper VII		Practical	<b>Molecular Biology: (15)</b> (a) Paper Chromatography for amino acid separation, (b) Slide TLC for oil separation, (c) Quantitative estimation of DNA in solution by Diphenyl method (at 595 nm).		6
				<b>Parasitology &amp; Microbiology: (20)</b> (a) Study of gut contents of cockroach (fixation, staining & identification) (b) Identification, systematic position, characters & clinical importance of the following parasites – <i>Entamoeba</i> , <i>Giardia</i> , <i>Trypanosoma</i> , <i>Plasmodium spp.</i> , <i>Leishmania</i> , <i>Wuchereria bancrofti</i> , <i>Ascaris</i> (male & female) (c) Gram staining of bacteria		8
				<b>Adaptations: (15)</b> Study of animals from museum specimens to analyze adaptive features for cursorial, aquatic, desert, volant and deep sea adaptations; features for parasitic mode of life.		8

	Paper 8		Practical	<b>Instrumentation (20)</b> Principle/function and laboratory use of micropipette, pH meter, colorimeter, centrifuge, digital balance, autoclave		8
				<b>Field work assessment (20)</b> Submission of field study report		10

Department: Zoology

Session:2020-2021

Name of the teacher: Dr.Arпита Rakshit

Seme ster	Course type (CC/GE/SEC/AEC C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Sem I Honours	CC 1	ZOOA - CC1-1-TH	Non-Chordates I: Protists to Pseudocoe lomates	UNIT 1: Basics of Animal classification: Definitions: Classification, Systematics and Taxonomy; Taxonomic Hierarchy, Taxonomic types Codes of Zoological Nomenclature; Principle of priority; Synonymy and Homonymy; Concept of classification – three kingdom concept of Carl Woese, 1977 and five kingdom concept of Whittaker, 1969	July-Dec	4
				UNIT 3: Porifera General characteristics and Classification up to classes (Ruppert and Barnes, 1994, 6th Ed.); Canal system and spicules in sponges		6
	CC 2	ZOOA -CC1-2-TH	Molecular Biology	UNIT 6: Gene Regulation: Regulation of Transcription in prokaryotes: <i>lac</i> operon and <i>trp</i> operon; Regulation of Transcription in eukaryotes: Activators, enhancers, silencer, repressors, miRNA mediated gene silencing. Epigenetic Regulation: DNA Methylation, Histone Methylation & Acetylation.		7
				UNIT 7: DNA repair mechanism: Types of DNA repair mechanisms, RecBCD model in prokaryotes, nucleotide and base excision repair, SOS repair		2
		ZOOA -CC1-2-PR	Lab	1. Demonstration of polytene and lampbrush chromosome from photograph		4
				3. Agarose gel electrophoresis for DNA.		4
				4. Histological staining of DNA and RNA in prepared slides		6
Sem II Honours	CC 4	ZOOA -CC2-4-TH	Cell Biology	UNIT 5: Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus; Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome)	Jan-Jun	8
				UNIT 6: Cell cycle: Cell cycle and its regulation, Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras. Process of Proto-oncogene activation		8

		ZOOA-CC-2-4-PR	Lab	1.Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis		6
				2. Study of various stages of meiosis from grasshopper testis		6
				3. Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek cells		2
				4. Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining		6
Sem III Honours	CC 5	ZOOA-CC3-5-TH	Chordata	UNIT 1: Introduction to Chordates: General characteristics and outline classification of Phylum Chordata (Young, 1981)	July-Dec	2
				UNIT 2: Potochordata: General characteristics and classification of sub-phylum Urochordata and Cephalochordata up to Classes (Young, 1981). Metamorphosis in <i>Ascidia</i> . Chordate Features, structure of pharynx and feeding in <i>Branchiostoma</i>		7
				UNIT 6: Reptilia: General characteristics and classification up to living Orders (Young, 1981); Poison apparatus and Biting mechanism in Snake. Poisonous & Non-Poisonous snake.		8
		ZOOA-CC3-5-PR	Chordata Lab	Identification with reasons: d) Amphibia: <i>Necturus</i> , <i>Bufo</i> ( <i>Duttaphrynus</i> ) <i>melanostictus</i> , <i>Rana</i> ( <i>Hoplobatrachus</i> ) <i>tigerinus</i> , <i>Hyla</i> , <i>Tylototriton</i> , Axolotl larva e) Reptilia: <i>Chelone</i> , <i>Trionyx</i> , <i>Hemidactylus</i> , <i>Varanus</i> , <i>Calotes</i> , <i>Chamaeleon</i> , <i>Draco</i> , <i>Vipera</i> , <i>Naja</i> , <i>Hydrophis</i> , f) Mammalia: Bat (Insectivorous and Frugivorous), <i>Funambulus</i> (Indian Palm squirrel)		14
				Power point presentation on study of habit, habitat or behaviour of any one animal by student – for internal assessment only		4
	CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Unit 2: Lipids: Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Tri acylglycerols, Phospholipids, Sphingolipid, Glycolipids, Steroids, Eicosanoids and terpinoids. Lipid metabolism: $\beta$ -oxidation of fatty acids - a. Palmitic acid {saturated (C 16:0)}, b. Linoleic acid {unsaturated (C 18:2)}; Fatty acid biosynthesis		7
				UNIT 3: Proteins: Amino acids: Structure, Classification, General and Electro chemical properties of $\alpha$ -amino acids; Physiological importance of essential and non-essential amino acids, Proteins Bonds stabilizing protein structure; Levels of organization; Protein metabolism: Transamination, Deamination, Urea cycle, Fate of C-skeleton of Glucogenic and Ketogenic amino acids		

		ZOOA-CC-7-3-PR	Lab	3. Paper chromatography of amino acids.		4
				4. Quantitative estimation of water soluble proteins following Lowry Method		6
Sem IV Honours	CC8	ZOOA-CC4-8-TH	Comparative Anatomy of Vertebrates	UNIT 1: Integumentary System: Structure, function and derivatives of integument in amphibian, birds and mammals	Jan-Jun	10
		ZOOA-CC4-8-P	Lab	1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs		4
				2. Study of disarticulated skeleton of toad, Pigeon, Guinea pig (limb bones, vertebrae, limb and girdle)		12
				3. Comparative study of heart and brain, with the help of model/picture		4
	CC9	ZOOA-CC4-9-TH	Animal Physiology	UNIT 5: Thermoregulation & Osmoregulation: Thermal regulation in camel and polar bear, Osmoregulation in aquatic vertebrates		6
		ZOOA-CC4-9-P	Lab	5. Identification of blood cells from cockroach haemolymph		4
				6. Demonstration of blood pressure by digital meter		4
	CC10	ZOOA-CC4-10-TH	Immunology	UNIT 5: Structure and functions of MHC molecules. Structure of T cell Receptor and its signalling, T cell development & selection		6
				UNIT 6: Types, properties and functions of cytokines		3
				UNIT 7: Components and pathways of complement activation.		5
		ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs (by picture).		2
				2. Histological study of Bursa fabricius, spleen, thymus and lymph nodes through slides/photographs		6
				3. Demonstration of ELISA		4
Sem V Honours	CC11	ZOOA-CC5-11-PR	Lab	1. Determination of population density in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index for the same community	July-Dec	6
				2. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, salinity		6
				3. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/ any place of ecological interest/ ecological uniqueness/ Zoological garden		6
	CC 12	ZOOA-CC5-12-TH	Principle of Genetics	UNIT 6: Genetic Fine structure: Complementation test in Bacteriophage (Benzer's experiment on rII locus)		2
		ZOOA	Lab	Chi-square analyses for genetic ratio test		6

		-CC5-12-PR				
	DSE (B)-5-1	ZOOA -DSE (B)-5-1-TH	Endocrinology	UNIT 5: Non mammalian Vertebrate hormone: Functions of Prolactin in Fishes, Amphibia & Birds Function of Melanotropin in Teleost fishes, Amphibians and Reptiles.		8
		ZOOA - DSE (B)-5-1-PR	Lab	2.Study of the permanent slides of all the endocrine glands		6
				3. Tissue fixation, embedding in paraffin, microtomy and slide preparation of any endocrine gland.		6
				4. H-E staining of Histological slides.		6
Sem VI Honours	CC13	ZOOA -CC6-13-TH	Developmental Biology	UNIT 4: Implications of Developmental Biology: <i>In vitro fertilization (IVF)</i> , <i>Stem cell: Concept of potency, types, markers and applications of stem cell therapy in bone marrow transplantation and cartilage regeneration</i>	Jan-Jun	5
	CC14	ZOOA -CC6-14-TH	Evolutionary Biology	UNIT 1:Origin of Life (Chemical basis), RNA world hypothesis		5
				UNIT 4: Natural Selection: Modes with Examples;		6
				UNIT 5: Species concept, Isolating mechanisms, modes of speciation; Speciation by chromosome rearrangement in <i>Drosophila</i> . Adaptive radiation/macroeolution (exemplified by Galapagosfinches).		10
	DSE A1	ZOOA - DSE(A)-6-1-TH	Animal Cell Biotechnology	UNIT 1: Concept and Scope of Biotechnology		2
				UNIT 2: Technoques in Gene manipulation: Recombinant DNA technology, Restriction endonucleases. Cloning Vectors & their features: Plasmids, Phage vectors, Cosmids, Phagemids, BAC, YAC, and HAC. Shuttle and Expression Vectors. Construction of Genomic libraries and cDNA libraries Transformation techniques: Cloning in bacteria and detection technique of clone		15
		ZOOA - DSE(A)-6-1-P	Lab	3. Preparation of genomic DNA from E. coli/animals/ human.		4
				4. Plasmid DNA isolation (pUC 18/19) and DNA quantitation using agarose gel electrophoresis (by using lambda DNA as standard).		4
				5. Techniques: PCR, DNA Microarrays (By Photograph)		4
Sem III General	GE 3			UNIT 2: Digestion: Physiology of digestion in the alimentary canal; Absorption of carbohydrates, proteins, lipids		6
				UNIT 9 :Protein Metabolism: Transamination, Deamination, Urea cycle		4
Sem IV General	GE 4			UNIT 1: Mandelian Genetics and its extension: Principles of Inheritance, Chromosome theory of inheritance, Incomplete dominance and codominance, Multiple alleles, lethal alleles, sex linked inheritance in <i>Drosophila</i> (White eyelocus) & Human (Thalassemia).		10
				UNIT 2: Linkage, Crossing Over: Linkage and crossing over, Complete & Incomplete		8

				Linkage, Recombination frequency as a measure of linkage intensity. Holiday Model		
--	--	--	--	---	--	--

**Department: Zoology**

**Session: 2021-2022**

**Name of the teacher: Dr. Arpita Rakshit**

Semester	Course type (CC/GE/SEC/AEC/C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Sem I Honours	CC 2	ZOOA-CC-1-2-TH	Molecular Biology	UNIT 7: DNA repair mechanism: Types of DNA repair mechanisms, RecBCD model in prokaryotes, nucleotide and base excision repair, SOS repair	July-Dec	2
				UNIT 8: Molecular Techniques: PCR, Western and Southern blot, Northern Blot		3
		ZOOA-CC1-2-PR	Lab	1. Demonstration of polytene and lampbrush chromosome from photograph		4
				3. Agarose gel electrophoresis for DNA.		4
				4. Histological staining of DNA and RNA in prepared slides		6
Sem II Honours	CC 4	ZOOA-CC2-4-TH	Cell Biology	UNIT 5: Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus; Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome)	Jan-Jun	8
				UNIT 6: Cell cycle: Cell cycle and its regulation, Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras. Process of Proto-oncogene activation)		8
		ZOOA-CC-2-4-PR	Lab	1. Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis		6
				2. Study of various stages of meiosis from grasshopper testis		6
				3. Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek cells		2
				4. Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining		6
Sem III Honours	CC 5	ZOOA-CC3-5-TH	Chordata	UNIT 1: Introduction to Chordates: General characteristics and outline classification of Phylum Chordata (Young, 1981)	July-Dec	2
				UNIT 2: Ptochordata: General characteristics and classification of sub-phylum Urochordata and Cephalochordata up to Classes (Young, 1981). Metamorphosis in <i>Ascidia</i> . Chordate Features, structure of pharynx and feeding in <i>Branchiostoma</i>		7

		ZOOA-CC3-5-PR	Chordata Lab	Identification with reasons: d) Amphibia: <i>Necturus</i> , <i>Bufo</i> ( <i>Duttaphrynus</i> ) <i>melanostictus</i> , <i>Rana</i> ( <i>Hoplobatrachus</i> ) <i>tigerinus</i> , <i>Hyla</i> , <i>Tylototriton</i> , Axolotl larva e) Reptilia: <i>Chelone</i> , <i>Trionyx</i> , <i>Hemidactylus</i> , <i>Varanus</i> , <i>Calotes</i> , <i>Chamaeleon</i> , <i>Draco</i> , <i>Vipera</i> , <i>Naja</i> , <i>Hydrophis</i> , f) Mammalia: Bat (Insectivorous and Frugivorous), <i>Funambulus</i> (Indian Palm squirrel)		14
				Power point presentation on study of habit, habitat or behaviour of any one animal by student – for internal assessment only		4
	CC7	ZOOA-CC3-7-TH	Fundamentals Biochemistry	Unit 2: Lipids: Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Triacylglycerols, Phospholipids, Sphingolipid, Glycolipids, Steroids, Eicosanoids and terpenoids. Lipid metabolism: $\beta$ -oxidation of fatty acids - a. Palmitic acid {saturated (C 16:0)}, b. Linoleic acid {unsaturated (C 18:2)}; Fatty acid biosynthesis		7
		ZOOA-CC-7-3-PR	Lab	3. Paper chromatography of amino acids.		4
				4. Quantitative estimation of water soluble proteins following Lowry Method		6
	Sem IV Honours	CC8	Comparative Anatomy of Vertebrates	UNIT 1: Integumentary System: Structure, function and derivatives of integument in amphibian, birds and mammals	Jan-Jun	10
		ZOOA-CC4-8-P	Lab	1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs		4
				2. Study of disarticulated skeleton of toad, Pigeon, Guinea pig (limb bones, vertebrae, limb and girdle)		12
				3. Comparative study of heart and brain, with the help of model/picture		4
		CC9	Animal Physiology	UNIT 5: Thermoregulation & Osmoregulation: Thermal regulation in camel and polar bear, Osmoregulation in aquatic vertebrates		6
		ZOOA-CC4-9-P	Lab	5. Identification of blood cells from cockroach haemolymph		4
				6. Demonstration of blood pressure by digital meter		4
		CC10	Immunology	UNIT 5: Structure and functions of MHC molecules. Structure of T cell Receptor and its signalling, T cell development & selection		6
				UNIT 6: Types, properties and functions of cytokines		3
				UNIT 7: Components and pathways of complement activation.		5
		ZOOA	Lab	Demonstration of lymphoid organs (by picture).		2

		-CC4-10-P				
				2. Histological study of Bursa fabricius, spleen, thymus and lymph nodes through slides/ photographs		6
				3. Demonstration of ELISA		4
Sem V Honours	CC11	ZOOA-CC5-11-PR	Lab	1. Determination of population density in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index for the same community	July-Dec	6
				2. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, salinity		6
				3. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/ any place of ecological interest/ ecological uniqueness/ Zoological garden		6
	CC 12	ZOOA-CC5-12-PR	Lab	Chi-square analyses for genetic ratio test		6
	DSE (B)-5-1	ZOOA - DSE (B)-5-1-PR	Lab	2.Study of the permanent slides of all the endocrine glands		6
				3. Tissue fixation, embedding in paraffin, microtomy and slide preparation of any endocrine gland.		6
				4. H-E staining of Histological slides.		6
Sem VI Honours	CC13	ZOOA-CC6-13-TH	Developmental Biology	UNIT 4: Implications of Developmental Biology: <i>In vitro</i> fertilization (IVF), Stem cell: Concept of potency, types, markers and applications of stem cell therapy in bone marrow transplantation and cartilage regeneration	Jan-Jun	5
	CC14	ZOOA-CC6-14-TH	Evolutionary Biology	UNIT 1:Origin of Life (Chemical basis), RNA world hypothesis		5
				UNIT 4: Natural Selection: Modes with Examples;		6
				UNIT 5: Species concept, Isolating mechanisms, modes of speciation; Speciation by chromosome rearrangement in <i>Drosophila</i> . Adaptive radiation/macroevolution (exemplified by Galapagosfinches).		10
	DSE A1	ZOOA - DSE(A)-6-1-TH	Animal Cell Biotechnology	UNIT 1: Concept and Scope of Biotechnology		2
				UNIT 2: Technoques in Gene manipulation: Recombinant DNA technology, Restriction endonucleases. Cloning Vectors & their features: Plasmids, Phage vectors, Cosmids, Phagemids, BAC, YAC, and HAC. Shuttle and Expression Vectors. Construction of Genomic libraries and cDNA libraries Transformation techniques: Cloning in bacteria and detection technique of clone		15
		ZOOA - DSE(A)-6-1-P	Lab	3. Preparation of genomic DNA from E. coli/animals/ human.		4
				4. Plasmid DNA isolation (pUC 18/19) and DNA quantitation using agarose gel electrophoresis (by using lambda DNA as standard).		4
				5. Techniques: PCR, DNA Microarrays		4



				(By Photograph)		
Sem III General	GE 3			UNIT 2: Digestion: Physiology of digestion in the alimentary canal; Absorption of carbohydrates, proteins, lipids		6
				UNIT 9: Protein Metabolism: Transamination, Deamination, Urea cycle		4
Sem IV General	GE 4			UNIT 1: Mendelian Genetics and its extension: Principles of Inheritance, Chromosome theory of inheritance, Incomplete dominance and codominance, Multiple alleles, lethal alleles, sex linked inheritance in <i>Drosophila</i> (White eye locus) & Human (Thalassemia).		10
				UNIT 2: Linkage, Crossing Over: Linkage and crossing over, Complete & Incomplete Linkage, Recombination frequency as a measure of linkage intensity. Holiday Model		8

Department: Zoology

Session: 2022-2023

Name of the teacher: Dr. Arpita Rakshit

Semester	Course type (CC/GE/SEC/AEC/C/DSE)	Paper	Unit name	Sub-unit name	Month	No. of classes
Sem I Honours	CC 2	ZOOA-CC-1-2-TH	Molecular Biology	UNIT 7: DNA repair mechanism: Types of DNA repair mechanisms, RecBCD model in prokaryotes, nucleotide and base excision repair, SOS repair	July-Dec	2
				UNIT 8: Molecular Techniques: PCR, Western and Southern blot, Northern Blot		3
		ZOOA-CC-1-2-PR	Lab	1. Demonstration of polytene and lampbrush chromosome from photograph		4
				3. Agarose gel electrophoresis for DNA.		4
				4. Histological staining of DNA and RNA in prepared slides		6
Sem II Honours	CC 4	ZOOA-CC-2-4-TH	Cell Biology	UNIT 5: Nucleus: Nuclear envelope, Nuclear pore complex, Nucleolus; Chromatin: Euchromatin and Heterochromatin and packaging (nucleosome)	Jan-Jun	8
				UNIT 6: Cell cycle: Cell cycle and its regulation, Cancer (Concept of oncogenes and tumor suppressor genes with special reference to p53, Retinoblastoma and Ras. Process of Proto-oncogene activation)		8
		ZOOA-CC-2-4-PR	Lab	1. Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis		6
				2. Study of various stages of meiosis from grasshopper testis		6
				3. Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek		2

				cells		
				4. Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining		6
Sem III Hono urs	CC 5	ZOOA -CC3- 5-TH	Chordata	UNIT 1: Introduction to Chordates: General characteristics and outline classification of Phylum Chordata (Young, 1981)	July- Dec	2
				UNIT 2: Potochordata: General characteristics and classification of sub- phylum Urochordata and Cephalochordata up to Classes (Young, 1981). Metamorphosis in <i>Ascidia</i> . Chordate Features, structure of pharynx and feeding in <i>Branchiostoma</i>		7
		ZOOA -CC3- 5-PR	Chordata Lab	Identification with reasons: d) Amphibia: <i>Necturus</i> , <i>Bufo</i> ( <i>Duttaphrynus</i> ) <i>melanostictus</i> , <i>Rana</i> ( <i>Hoplobatrachus</i> ) <i>tigerinus</i> , <i>Hyla</i> , <i>Tylototriton</i> , Axolotl larva e) Reptilia: <i>Chelone</i> , <i>Trionyx</i> , <i>Hemidactylus</i> , <i>Varanus</i> , <i>Calotes</i> , <i>Chamaeleon</i> , <i>Draco</i> , <i>Vipera</i> , <i>Naja</i> , <i>Hydrophis</i> , f) Mammalia: Bat (Insectivorous and Frugivorous), <i>Funambulus</i> (Indian Palm squirrel)		14
				Power point presentation on study of habit, habitat or behaviour of any one animal by student – for internal assessment only		4
	CC7	ZOOA -CC3- 7-TH	Fundamen tals Biochemis try	Unit 2: Lipids: Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Tri acylglycerols, Phospholipids, Sphingolipid, Glycolipids, Steroids, Eicosanoids and terpenoids. Lipid metabolism: $\beta$ -oxidation of fatty acids - a. Palmitic acid {saturated (C 16:0)}, b. Linoleic acid {unsaturated (C 18:2)}; Fatty acid biosynthesis		7
				3. Paper chromatography of amino acids.		4
		ZOOA -CC-7- 3-PR	Lab	4. Quantitative estimation of water soluble proteins following Lowry Method		6
Sem IV Hono urs	CC8	ZOOA -CC4- 8-TH	Comparati ve Anatomy of Vertebrate s	UNIT 1: Integumentary System: Structure, function and derivatives of integument in amphibian, birds and mammals	Jan- Jun	10
		ZOOA -CC4- 8-P	Lab	1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs		4
				2. Study of disarticulated skeleton of toad, Pigeon, Guineapig (limb bones, vertebrae, limb and girdle)		12
				3. Comparative study of heart and brain, with the help of model/picture		4
	CC9	ZOOA -CC4- 9-TH	Animal Physiolog y	UNIT 5: Thermoregulation & Osmoregulation: Thermal regulation in camel and polar bear, Osmoregulation in aquatic vertebrates		6
		ZOOA	Lab	3. Identification of blood cells from human blood		

		-CC4-9-P		5. Identification of blood cells from cockroach haemolymph		4
				6. Demonstration of blood pressure by digital meter		4
	CC10	ZOOA-CC4-10-TH	Immunology	UNIT 5: Structure and functions of MHC molecules. Structure of T cell Receptor and its signalling, T cell development & selection		6
				UNIT 6: Types, properties and functions of cytokines		3
		ZOOA-CC4-10-P	Lab	Demonstration of lymphoid organs (by picture).		2
				2. Histological study of Bursa fabricius, spleen, thymus and lymph nodes through slides/ photographs		6
				3. Demonstration of ELISA		4
Sem V Honours	CC11	ZOOA-CC5-11-PR	Lab	1. Determination of population density in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index for the same community	July-Dec	6
				2. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, salinity		6
				3. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/ any place of ecological interest/ ecological uniqueness/ Zoological garden		6
	CC 12	ZOOA-CC5-12-PR	Lab	Chi-square analyses for genetic ratio test		6
	DSE (B)-5-1	ZOOA - DSE (B)-5-1-PR	Lab	2.Study of the permanent slides of all the endocrine glands		6
				3. Tissue fixation, embedding in paraffin, microtomy and slide preparation of any endocrine gland.		6
Sem VI Honours	CC13	ZOOA-CC6-13-TH	Developmental Biology	UNIT 4: Implications of Developmental Biology: <i>In vitro fertilization (IVF), Stem cell: Concept of potency, types, markers and applications of stem cell therapy in bone marrow transplantation and cartilage regeneration</i>	Jan-Jun	5
				UNIT 1:Origin of Life (Chemical basis), RNA world hypothesis		5
	CC14	ZOOA-CC6-14-TH	Evolutionary Biology	UNIT 5: Species concept, Isolating mechanisms, modes of speciation; Speciation by chromosome rearrangement in <i>Drosophila</i> . Adaptive radiation/macroevolution (exemplified by Galapagosfinches).		10
				3. Preparation of genomic DNA from E. coli/animals/ human.		4
	DSE (A) -1	ZOOA - DSE(A)-6-1-P	Lab	4. Plasmid DNA isolation (pUC 18/19) and DNA quantitation using agarose gel electrophoresis (by using lambda DNA as standard).		4
				5. Techniques: PCR, DNA Microarrays (By Photograph)		4
Sem	GE 3			UNIT 2: Digestion: Physiology of digestion in the		6

III General				alimentary canal; Absorption of carbohydrates, proteins, lipids		
				UNIT 9 :Protein Metabolism: Transamination, Deamination, Urea cycle		4
Sem IV General	GE 4			UNIT 1: Mandelian Genetics and its extension: Principles of Inheritance, Chromosome theory of inheritance, Incomplete dominance and codominance, Multiple alleles, lethal alleles, sex linked inheritance in <i>Drosophila</i> (White eyelocus) & Human (Thalassemia).		10
				UNIT 2: Linkage, Crossing Over: Linkage and crossing over, Complete & Incomplete Linkage, Recombination frequency as a measure of linkage intensity. Holiday Model		8

#### TEACHING PLAN

**DEPARTMENT : ZOOLOGY**

**NAME OF THE TEACHER : DR. SHANTA ADAK.**

**SESSION : 2018-19**

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOA-CC1-2-TH	MOLECULAR BIOLOGY	UNIT 1: NUCLEIC ACIDS UNIT 8: MOLECULAR TECHNIQUES  1.DEMONSTRATION OF POLYTENE & LAMPBRUSH CHROMOSOMES FROM PHOTOGRAPH. 2.ISOLATION & QUANTIFICATION OF GENOMIC DNA FROM GOAT LIVER	ALL	SEPTEMBER(2018 )- JANUARY (2019)	12
ZOOA-CC1-2-P				DO	10
ZOOA-OLD SYLLABUS	ANIMAL PHYSIOLOGY & BIOCHEMISTRY	Structure & function of haemoglobin, transport of O <sub>2</sub> and CO <sub>2</sub> in mammals, Bohr and Haldane effect, Chloride shift Enzymes - Classes;			14

	ECOLOGY	<p>kinetics and factors affecting enzyme action, enzyme inhibition</p> <p>Population interactions – emergence of competition as a central theory experiments of Tansley, Gause and Park, competition exclusion principle, interspecific and intraspecific competitions, Lotka Volterra model</p>			14
--	---------	--	--	--	----

**SESSION : 2019-20**

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOA-CC1-2-TH	MOLECULAR BIOLOGY	UNIT 1: NUCLEIC ACIDS UNIT 8: MOLECULAR TECHNIQUES	ALL	SEPTEMBER(2019)- JANUARY (2020)	12
ZOOA-CC1-2-P		1.DEMONSTRATION OF POLYTENE & LAMPBRUSH CHROMOSOME FROM PHOTOGRAPH. 2.ISOLATION & QUANTIFICATION OF GENOMIC DNA FROM GOAT LIVER		DO	10
ZOOA-CC3-6-TH	ANIMAL PHYSIOLOGY: CONTROLLING & CO-ORDINATING SYSTEM	UNIT 5: REPRODUCTIVE SYSTEM	ALL	AUGUST (2019)- FEBRUARY (2020)	6
ZOOA-CC3-7-TH	FUNDAMENTALS OF BIOCHEMISTRY	UNIT 4: NUCLEIC ACIDS UNIT 5: ENZYMES	ALL	DO	23
ZOOA-CC2-4-TH	CELL BIOLOGY	UNIT 7: CELL SIGNALLING	ALL	FEBRUARY (2020)- AUGUST 2020)	8

ZOOA-CC4-9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEM	UNIT 6: RENAL PHYSIOLOGY		DO	8
ZOOA-CC4-10-TH	IMMUNOLOGY	UNIT 8: HYPERSENSITIVITY UNIT 9: VACCINES		DO	4 4
ZOOA-CC4-10-P		HISTOLOGICAL STUDY OF BURSA FABRICIUS, SPLEEN, THYMUS & LYMPH NODES THROUGH SLIDES/PHOTOGRAPHS		DO	4
ZOOA-OLD SYLL ABUS	ANIMAL BIOTECHNOLOGY & APPLIED ZOOLOGY	1. TRANSGENIC ANIMALS 2. ANIMAL CELL CULTURE 3. GENE THERAPY		AUGUST (2019) – FEBRUARY (2020)	20
	INTEGRATION BIOLOGY & HOMEOSTASIS	1. MECHANISM OF HORMONE ACTION 2. ENDOCRINE REGULATION OF OESTROUS & MENSTRUAL CYCLE 3. BIOLOGICAL LIGHT PRODUCTION			

**SESSION : 2020-21**

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOA-CC1-2-TH	MOLECULAR BIOLOGY	UNIT 1: NUCLEIC ACIDS UNIT 8: MOLECULAR TECHNIQUES	ALL	DECEMBER (2020)- MARCH (2021)	12
ZOOA-CC3-6-TH	ANIMAL PHYSIOLOGY: CONTROLLING & CO-ORDINATING SYSTEM	UNIT 5: REPRODUCTIVE SYSTEM	ALL	AUGUST (2020)- FEBRUARY (2021)	6
ZOOA-CC3-7-TH	FUNDAMENTALS OF BIOCHEMISTRY	UNIT 4: NUCLEIC ACIDS UNIT 5: ENZYMES	ALL	DO	23
ZOOA-CC5-11-TH	ECOLOGY	UNIT 5: APPLIED ECOLOGY	ALL	AUGUST (2020)- JANUARY (2021)	7
ZOOA-CC5-12-TH	PRINCIPLE OF GENETICS	UNIT 4: SEX DETERMINATION	ALL	DO	8

ZOOA-DSE(A)-5-1-TH	PARASITOL OGY	UNIT 4: PARASITIC NEMATODES	ALL	DO	12
ZOOA-DSE(B)-5-1-TH	ENDOCRINO LOGY	UNIT 4: REGULATION OF HORMONE ACTION	ALL	DO	12
ZOOA-CC2-4-TH	CELL BIOLOGY	UNIT 7: CELL SIGNALLING	ALL	APRIL (2021- AUGUST 2021)	8
ZOOA-CC4-9-TH	ANIMAL PHYSIOLOG Y: LIFE SUSTAINING SYSTEM	UNIT 6: RENAL PHYSIOLOGY		DO	8
ZOOA-CC4-10-TH	IMMUNOLO GY	UNIT 8: HYPERSENSITIVITY UNIT 9: VACCINES		DO	4 4
ZOOA-CC4-10-P		HISTOLOGICAL STUDY OF BURSA FABRICIUS, SPLEEN, THYMUS & LYMPH NODES THROUGH SLIDES/PHOTOGRAPHS		DO	4
ZOOA-CC6-14-TH	EVOLUTION ARY BIOLOGY	UNIT 8: EXTINCTION UNIT 9: PHYLOGENETIC TREES	ALL	DO	3 5
ZOOA-DSE(A)-6-1-TH	ANIMAL CELL BIOTECHNO LOGY	UNIT 3: ANIMAL CELL CULTURE		DO	15
ZOOA-DSE(B)-6-2-TH	FISH & FISHERIES	UNIT 5: FISH IN RESEARCH		DO	6
ZOOA-DSE(B)-6-2-P		2. IDENTIFICATION OF <i>Petromyzon</i> , <i>Myxine</i> , <i>Pristis</i> , <i>Exocoetus</i> , <i>Hippocampus</i> , <i>Gambusia</i> , <i>Labeo</i> , <i>Heteropneustes</i> , <i>Anabas</i>		DO	6
ZOOA-CC6-13-P	DEVELOPM ENTAL BIOLOGY	4. IDENTIFICATION OF INVERTEBRATE LARVA THROUGH SLODES/PHOTOGRAPHS OF PHYLUM ANNELIDA, ARTHROPODA, MOLLUSCA & ECHINODERMATA		DO	6
ZOOG-CC2-2-TH	COMPARATI VE ANATOMY & DEVELOPM ENTAL BIOLOGY	UNIT 1: INTEGUMENTARY SYSTEM UNIT 3: RESPIRATORY SYSTEM	ALL	NOVEMB ER (2020)- MARCH (2021)	10
		UNIT 1: INTEGUMENTARY SYSTEM UNIT 2: DIGESTIVE SYSTEM		APRIL (2021) – AUGUST (2021)	8

ZOOG-CC3-3-TH	PHYSIOLOGY & BIOCHEMISTRY	UNIT 4: CARDIO-VASCULAR SYSTEM UNIT 5: EXCRETION UNIT 10: ENZYMES	ALL	DECEMBER (2020)-APRIL (2021)	16
ZOOG-CC4-4-P	GENETICS & EVOLUTIONARY BIOLOGY	1. VERIFICATION OF MENDELIAN RATIO USING CHI SQUARE TEST. 2. IDENTIFICATION OF HUMAN ANEUPLOIDY USING PHOTOGRAPH OF KARYOTYPE.		APRIL (2021) – AUGUST (2021)	16

**SESSION : 2021-22**

COURSE TYPE	PAPER	UNIT NAME	SUB-UNIT NAME	MONTH	NO. OF CLASSES
ZOOA-CC1-2-TH	MOLECULAR BIOLOGY	UNIT 1: NUCLEIC ACIDS UNIT 5: POST TRANSCRIPTIONAL MODIFICATIONS & PROCESSIONG OF EUKARYOTIC RNA UNIT 8: MOLECULAR TECHNIQUES	ALL	OCTOBER (2021)-FEBRUARY (2022)	3 8 3
ZOOA-CC1-1-TH	NON-CHORDATES: 1	UNIT 5: CTENOPHORA		SEPTEMBER (2022)-FEBRUARY (2023)	2
ZOOA-CC1-2-TH	MOLECULAR BIOLOGY	UNIT 1: NUCLEIC ACIDS UNIT 2: DNA REPLICATION		DO	3 9
ZOOA-CC3-6-TH	ANIMAL PHYSIOLOGY: CONTROLLING & CO-ORDINATING SYSTEM	UNIT 5: REPRODUCTIVE SYSTEM	ALL	SEPTEMBER (2021,22)-FEBRUARY (2022,23)	6
ZOOA-CC3-7-TH	FUNDAMENTALS OF BIOCHEMISTRY	UNIT 4: NUCLEIC ACIDS UNIT 5: ENZYMES	ALL	DO	23
ZOOG-CC3-3-TH	PHYSIOLOGY AND BIOCHEMISTRY	UNIT 4: CARDIOVASCULAR SYSTEM UNIT 5: EXCRETION UNIT 10: ENZYME	ALL	DO	6 6 2
ZOOA-CC5-11-TH	ECOLOGY	UNIT 5: APPLIED ECOLOGY	ALL	SEPTEMBER (2021,22)-FEBRUARY (2022,23)	7 8
ZOOA-CC5-12-TH	PRINCIPLE OF GENETICS	UNIT 4: SEX DETERMINITION	ALL	DO	
ZOOA-DSE(A)-5-1-TH	PARASITOLOGY	UNIT 4: PARASITIC NEMATODES	ALL	DO	12
ZOOA-DSE(B)-5-1-TH	ENDOCRINOLOGY	UNIT 4: REGULATION OF HORMONE ACTION	ALL	DO	12



ZOOA-CC2-4-TH	CELL BIOLOGY	UNIT 7: CELL SIGNALLING	ALL	MARCH (2022)-AUGUST (2022)	8
ZOOA-CC4-8-TH	COMPARATIVE ANATOMY OF VERTEBRATES	UNIT 5: URINOGENITAL SYSTYEM UNIT 6: NERVOUS SYSTEM & SENSE ORGANS		FEBRUARY (2022)-AUGUST (2022)	5 8
ZOOA-CC4-9-TH	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEM	UNIT 6: RENAL PHYSIOLOGY		DO	8
ZOOA-CC4-10-TH	IMMUNOLOGY	UNIT 8: HYPERSENSITIVITY UNIT 9: VACCINES		DO	4 4
ZOOA-CC6-13-TH	DEVELOPMENTAL BIOLOGY	UNIT 3: POST EMBRYONIC DEVELOPMENT	ALL	FEBRUARY (2022)-AUGUST (2022)	8
ZOOA-CC6-14-TH	EVOLUTIONARY BIOLOGY	UNIT 8: EXTINCTION UNIT 9: PHYLOGENETIC TREES	ALL	DO	3 5
ZOOA-CC6-14-P		PHYLOGENETIC TREES, CONSTRUCTION & INTERPRETATION OF PHYLOGENETIC TREE USING PERSIMONY, CONSTRUCTION OF DENDOGRAM FOLLOWING PRINCIPLES OF PHENETICS			6
ZOOA-DSE(A)-6-1-TH	ANIMAL CELL BIOTECHNOLOGY	& CLADISTICS FROM A DATA TABLE.  UNIT 3: ANIMAL CELL CULTURE		DO	15
ZOOG-CC2-2-P	COMPARATIVE ANATOMY & DEVELOPMENTAL BIOLOGY	1. OSTEOLOGY 2. LARVAL STAGES	ALL	APRIL (2022)-AUGUST (2022)	8
ZOOG-CC1-1-TH	ANIMAL DIVERSITY	UNIT 1: KINGDOM PROTISTA UNIT 2: PHYLUM PORIFERA UNIT 3: PHYLUM CNIDARIA UNIT 4: PHYLUM PLATYHELMINTHES	ALL	OCTOBER (2022)-FEBRUARY (2023)	8

