

Teaching Plan (Session 2022-2023)

Class: B.Sc.-I (Sem-I)

Teacher Name : Smt. Gurmeet Kaur

Subject: Zoology

Name of Paper : NON- CHORDATES

Sr. No.	Date (Weekly Schedule)	Subject Matter
1	25-08-22 to 01-09-2022	Phyllum Protozoa- Conjugation in Paramecium
2	02-09-22 to 08-09-22	Phyllum Porifera – Canal System
3	09-09-22 to 15-09-22	Phyllum Platyhelminthis – Life Cycle of Fasciola Hepatica
4	17-09-22 to 22-09-22	Phyllum Aschelminthes – Life Cycle of Ascaris
5	24-09-22 to 29-09-22	Phyllum Annelida- Earth Worm
6	01-10-22 to 06-10-22	Phyllum Arthropoda – Terrestrial respiration in Periplaneta
7	08-10-22 to 13-10-22	Phyllum Onychophora – General Characteristics
8	15-10-22 to 20-10-22	Phyllum Mollusca – Torsion in Gastropoda, Definition of Torsion
9	22-10-22 to 27-10-22	Effects of Torsion on body structure
10	29-10-22 to 04-11-22	Detorsion, Feeding of Pila Globosa
11	6-11-22 to 11-11-22	Respiration in Pila globosa
12	13-11-22 to 18-11-22	Phyllum Echinodermata – Water vascular System in Asterias
13	20-11-22 to 25-11-22	Phyllum Hemichordata- Affinities
14	27-11-22 to 01-12-22	Character of Balanoglossus
15	02-12-22 to 07-12-22	Echinoderm larvae – Affinities with choradates
16	09-12-22 to 15-12-22	Revision
17	16-12-22 to 21-12-22	Revision & Class Test

Principal

Govt. Shivalik College, Naya Nangal-140126

Teaching Plan (Session 2022-2023)

Class: B.Sc.-II (Sem-III)

Teacher Name : Smt. Gurmeet Kaur

Subject: Zoology

Name of Paper : Bio-Chemistry

Sr. No.	Date (Weekly Schedule)	Subject Matter
1	29-08-22 to 03-09-2022	Biochemistry : its scope and importance
2	05-09-22 to 10-09-22	Biomolecules : Configuration and conformation
3	12-09-22 to 17-09-22	Carbohydrates – Monosaccharides its metabolism
4	19-09-22 to 24-09-22	Glycolysis, Citric acid Cycle
5	26-09-22 to 01-10-22	Pentose Phosphate pathway
6	03-10-22 to 08-10-22	Proteins – Amino acids-Structure, Classification
7	10-10-22 to 15-10-22	Essential and non-essential amino, Deamination
8	17-10-22 to 22-10-22	Levels of protein organization, Urea cycle, Transamination
9	24-10-22 to 29-10-22	Lipids : Structure saturated and unsaturated fatty acid
10	31-10-22 to 07-11-22	Triacylglycerols, Phospholipids, Glycolipids
11	9-11-22 to 12-11-22	Lipid metabolism B-oxidation of fatty acids
12	14-11-22 to 19-11-22	Nucleic Acids : Structure of Purines, Pyrimidines, Nucleic Acids metabolism
13	21-11-22 to 26-11-22	Enzymes : Nomenclature and classification, Cofactors , Isozymes , Mechanism of enzyme action, Revision & Class Test

GOVT. SHIVALIK COLLEGE NAYA NANGAL

TEACHING PLAN (SESSION 2022-2023)

NAME OF TEACHER:

Smt. GurmeetKaur

SUBJECT: -Zoology

CLASS- BACHELOR OF SCIENCE-III (M)

Paper-I: Molecular Biology

SEMESTER - V

Sr. no	Weekly	Subject matter
1	29-08-2022 TO 03-09-2022	The nature of genetic material: DNA Structure. Watson and Crick-model, Polymorphism of DNA Helix.
2	05-09-2022 TO 10-09-2022	Replication of DNA: Enzymes and mechanism involved in DNA replication (prokaryotes and eukaryotes), DNA damage and repair.
3	12-09-2022 TO 17-09-2022	Transcription: Mechanism of Transcription in Prokaryotes and Eukaryotes
4	19-09-2022 TO 24-09-2022	RNA Processing: Concept of introns and exons, spliceosome machinery and splicing pathways.
5	26-09-2022 TO 01-10-2022	Revision classes& Class test
6	03-10-2022 TO 08-10-	

2022	Translation (Prokaryotes and Eukaryotes): Various steps and mechanism involved in protein synthesis.
10-10-2022 TO 15-10-2022	Transcription Regulation: Principles of transcriptional regulation in prokaryotes with examples from lac and trp operons
17-10-2022 TO 22-10-2022	Transcription Regulation in Eukaryotes. Recombinant DNA technology: Introduction to the concept of Recombinant DNA Technology
24-10-2022 TO 29-10-2022	Enzymes involved, vectors, transformation techniques (microbial). Construction and screening of DNA libraries.
31-10-2022 TO 07-11-2022	Application of recombinant DNA technology: Application in medicine: vaccines, detection of genetic diseases (Sickle cell anemia), gene therapy.
09-11-2022 TO 12-11-2022	MST
14-11-2022 TO 19-11-2022	Revision classes& Class test
21-11-2022 TO 26-11-2022	Revision classes& Class test

Signature of teachers

GOVT. SHIVALIK COLLEGE NAYA NANGAL

TEACHING PLAN (SESSION 2022-2023)

NAME OF TEACHER:

Smt. Gurmeet Kaur

SUBJECT: -Zoology

CLASS- BACHELOR OF SCIENCE-I(M)

Paper:- Chordates

SEMESTER - II

Sr. no	Weekly	Subject matter
1	13-02-2023 TO 18-02-2023	Brief classification of Chordata, Chordate characters, Origin of Chordata
2	20-02-2023 TO 25-02-2023	2. Protochordata: General characteristics, affinities of Hemichordata, Urochordata and Cephalochordata. Study of larval forms in protochordates; Retrogressive metamorphosis in Urochordata
3	27-02-2023 TO 04-03-2023	3. Advanced features of vertebrates over Protochordata
4	06-03-2023 TO 11-03-2023	4. Agnatha: General characteristics, External features of <i>Petromyzon</i> .
5	13-03-2023 TO 18-03-2023	Revision classes & Class test
6	13-03-2023 TO 18-03-	5. Pisces: General characteristics and outline classification (up to order).

	2023	
7	20-03-2023 TO 25-03-2023	General characteristics of Chondrichthyes and Osteichthyes. Scales and fins in fishes. Parental care in fishes. Migration, Swim bladder, Osmoregulation in fishes. Economic importance of fishes
8	27-03-2023 TO 01-04-2023	6. Origin of Tetrapoda (Evolution of terrestrial ectotherms) Amphibia: General character, Neoteny and Paedogenesis. Parental care in Amphibia
9	03-04-2023 to 08-04-2023	7. Higher Chordata: Salient features, of various Higher chordate groups as covered under respective taxonomic groups.
10	03-04-2023 to 08-04-2023	8. Reptilia: A brief knowledge of extinct reptiles. Poisonous and non- poisonous snakes.
1	10-04-2023 to 15-04-2023	Poison apparatus of snake. Snake venom and anti-venom. Evolution and Adaptive radiation in reptiles.
	17-04-2023 to 22-04-2023	9. Aves: General characteristics, Origin and Ancestry of birds, Archaeopteryx a connecting link, Flightless birds and their distribution.
	24-04-2023 to 29-04-2023	MST
	01-05-2023 to 06-05-2023	Principles and aerodynamics of flight, Flight adaptations in birds, Perching mechanism, Bird migration.
	08-05-2023 to 13-05-	10. Mammalia: General characters, Origin and ancestry, affinities of Prototheria. Adaptive radiation, Dentition in mammals.

	2023	
	15-05-2023 to 20-05-2023	Revision and class test
	22-05-2023 to 30-05-2023	Revision and class test

Signature of teachers

Teaching Plan (Session 2022-2023)

Class: B.Sc.-II (Sem-IV)

Teacher Name : Smt. Gurmeet Kaur

Subject: Zoology

Name of Paper : Genetics

Sr. No.	Date (Weekly Schedule)	Subject Matter
1	01-02-22 to 04-02-2022	Modification of Mendelian ratios : Non-allelic gene interaction, Modified F ₂ ratios
2	06-02-22 to 11-02-2022	Chromatin and Nucleosome : Structure of Nucleosome, Chromatin structure
3	13-02-22 to 18-02-2022	Multiple Alleles – Blood Group inheritance, Multiple factors – Skin colour in man, Extranuclear inheritance – Kappa particles in Paramecium
4	20-02-22 to 25-02-2022	Linkage- Types theories and significance,
5	27-02-22 to 04-03-2022	crossing over – Mechanism
6	06-03-22 to 11-03-2022	Population Genetics – Equilibrium of gene frequencies,
7	13-03-22 to 18-03-2022	Hardy Weinberg Law
8	20-03-22 to 25-03-2022	Mutation : Deletion, Duplication, Inversion
9	27-03-22 to 01-04-2022	Genetic recombination in bacteria – conjugation
10	03-04-22 to 08-04-2022	Transformation, Transduction
11	10-04-22 to 15-04-2022	Sex determination : Autosomes and allosomes
12	17-04-22 to 22-04-2022	Sex linked inheritance, colourblindness, Haemophilia
13	24-04-22 to 29-04-2022	Transposable genetic elements: Prokaryotic transposable elements
14	01-05-22 to 06-05-2022	Human Genetics : Syndromes – Turner's Klinefelter's syndromes
15	08-05-22 to 13-05-2022	Revision
16	15-05-22 to 20-05-2022	Revision & Class Test

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Teaching Plan (Session 2022-2023)

Class: B.Sc.-III (Sem-VI)

Teacher Name : Smt. Gurmeet Kaur

Subject: Zoology

Name of Paper : Medical Zoology & Medical Lab Technology

Sr. No.	Date (Weekly Schedule)	Subject Matter
1	01-02-22 to 04-02-2022	Introduction to Parasitology, Life History , Mode of infection of Pathogenic protozoans
2	06-02-22 to 11-02-2022	Life cycle, control measures of arthropod vectors of yellow fever
3	13-02-22 to 18-02-2022	Dengue, Haemorrhagic fever
4	20-02-22 to 25-02-2022	Pathogenic helminthes : Life History ,
5	27-02-22 to 04-03-2022	Mode of infection
6	06-03-22 to 11-03-2022	Laboratory Techniques : Colorimetry
7	13-03-22 to 18-03-2022	Microscopy, Autoclaving, Centrifugation
8	20-03-22 to 25-03-2022	Haematology:Collection of blood
9	27-03-22 to 01-04-2022	Romanowsky's stains, Total RBC count
10	03-04-22 to 08-04-2022	Erythrocyte sedimentation rate
11	10-04-22 to 15-04-2022	TLC count, DLC, Platelet count
12	17-04-22 to 22-04-2022	Biochemistry, Protein estimation
13	24-04-22 to 29-04-2022	Urine analysis
14	01-05-22 to 06-05-2022	Sugar, bile salts, bile pigments
15	08-05-22 to 13-05-2022	Enzyme studies, Liver function test
16	15-05-22 to 20-05-2022	Revision & Class Test