

GOVT. COLLEGE , MATANHAIL

Lesson plan for the session 2025-26

Name of Faculty:- Dr. Sandeep kumar

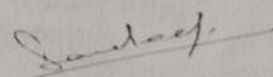
Class & section:- B.Sc. I (Life Science)

Subject:- Zoology (SEC)

Semester:- First

Week	Date	Topics
1	15/07/2025 To 19/07/2025	Apiculture meaning, definition scope and history Status of Apiculture Industry in India
2	21/07/2025 To 26/07/2025	Classification and Life Cycle of Honey Bee.
3	28/07/2025 To 02/08/2025	Identification of Indigenous and exotic Honey bee species
4	04/08/2025 To 09/08/2025	Unit test- I & Revision
5	11/08/2025 To 16/08/2025	Cultivable species of Honey Bee with reference to India
6	18/08/2025 To 23/08/2025	Social organization of honey bees: the castes-queen, drone and workers
7	24/08/2025 To 30/08/2025	Nesting behavior of Honey bees, Bee foraging; Seasonal management, swarming in Honey bees
8	01/09/2025 To 06/09/2025	Waggle dance, defense in honey bees Diseases and Enemies of Bees, Control and Preventive measures.
9	08/09/2025 To 13/09/2025	Role of Bees in cross pollination in horticulture and agriculture
10	15/09/2025 To 20/09/2025	Methods of Artificial Bee keeping Equipments used in Beekeeping Industry
11	22/09/2025 To 27/09/2025	Methods of extraction of Honey and other products

12	29/09/2025 To 04/10/2025	Unit test- II & Revision
13	06/10/2025 To 11/10/2025	Products of Apiculture Industry and their Uses (Honey, Bee Wax, Royal Jelly, Bee Venom, Propolis and Pollen)
14	13/10/2025	Revision
15	14/10/2025 To 22/10/2025	DIWALI VACATIONS
16	23/10/2025 To 25/10/2025	Bee Keeping Industry: Present and future Prospects of apiculture as self employment venture.
17	27/10/2025 To 01/11/2025	Bee Keeping Industry: Present and future Prospects of apiculture as self employment venture.
18	03/11/2025 To 08/11/2025	Economics of Apiculture: Expenditure, Net Income, and Additional benefits
19	10/11/2025 To 15/11/2025	Unit test –III & Revision
20	17/11/2025 To 18/11/2025	Revision



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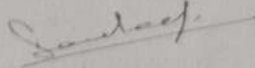
Subject:- Zoology (DSC)

Class & section:- B.Sc. II(Life Science)

Semester:- Third

Week	Date	Topics
1	28/07/2025 To 02/08/2025	Plasma Membrane: Fluid mosaic model, transport across the membrane.
2	04/08/2025 To 09/08/2025	Mechanism of active and passive transport, endocytosis and exocytosis.
3	11/08/2025 To 16/08/2025	Endoplasmic reticulum (ER): Types and its functions. Goigi complex: Structure and role of golgi-complex in animal cell.
4	18/08/2025 To 23/08/2025	Ultrastructure and functions of Nucleus: nucleolus.
5	24/08/2025 To 30/08/2025	Nucleosome concept and role of histones, fine structure of chromosomes, Euchromatin and heterochromatin
6	01/09/2025 To 06/09/2025	lampbrush chromosomes and polytene chromosomes. Ribosomes: Types, and role in protein synthesis.
7	08/09/2025 To 13/09/2025	Lysosomes: Structure, enzyme and their role; polymorphism Mitochondria: Structure and role of mitochondria.
8	15/09/2025 To 20/09/2025	Cytoskeleton: Microtubules, microfilaments, centriole and basal body, cilia and flagella Mitosis and Meiosis, an elementary idea of cellular basis of Immunity.
9	22/09/2025 To 27/09/2025	Mendelian inheritance, Linkage and recombination, Sex determination and its mechanism,
10	29/09/2025 To 04/10/2025	Sex linked inheritance: Haemophilia and colour blindness in man, Multiple allelism: A, B, O blood group in man.

		Inborn errors of metabolism (Alkaptonuria, Phenylketonuria, Albinism) sickle-cell-anaemia
11	06/10/2025 To 11/10/2025	Unit test- I & Revision
12	13/10/2025	Revision
13	14/10/2025 To 22/10/2025	Diwali Vacations
14	23/10/2025 To 25/10/2025	Nature and function of genetic material : Structure and type of nucleic acids
15	27/10/2025 To 01/11/2025	Gene mutations: spontaneous and induced (chemical and radiations) mutations; chemical basis of mutations; transition, transversion.
16	03/11/2025 To 08/11/2025	Chromosomal abnormalities involving autosomes and sex chromosomes : Structural chromosomal aberrations (deletion, duplication, inversion and translocation).
17	10/11/2025 To 15/11/2025	DNA replication,transcription,translation.
18	17/11/2025 To 18/11/2025	Unit test-II & Revision


Signature of Faculty

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Lesson plan for the session 2025-26

Name of Faculty:- Dr. Sandeep kumar

Class & section:- B.Sc. III (Medical)

Subject:- Zoology

Semester:- Fifth

Week	Date	Topics
1	28/07/2025 To 02/08/2025	Basic concepts of ecology: Definition, significance. Concepts of habitat and ecological niche.
2	04/08/2025 To 09/08/2025	Factors affecting environment: Abiotic factors (light-intensity, quality and duration), Temperature.
3	11/08/2025 To 16/08/2025	Humidity, topography; edaphic factors; biotic factors.
4	18/08/2025 To 23/08/2025	Ecosystem: Concept, components, properties and functions; Ecological energetics and energy flow-food chain
5	24/08/2025 To 30/08/2025	Food web, trophic structure; ecological pyramids concept of productivity.
6	01/09/2025 To 06/09/2025	Biogeochemical cycles: Concept, reservoir pool, gaseous cycles and sedimentary cycles.
7	08/09/2025 To 13/09/2025	Population: Growth and regulation. & Revision
8	15/09/2025 To 20/09/2025	Unit test-I & Revision
9	22/09/2025 To 27/09/2025	Concept and evidences of organic evolution.
10	29/09/2025 To 04/10/2025	Theories of organic evolution.
11	06/10/2025 To	Concept of microevolution and concept of species

	11/10/2025	
12	13/10/2025	Revision
13	14/10/2025 To 22/10/2025	DIWALI VACATIONS
14	23/10/2025 To 25/10/2025	Concept of macro-and mega-evolution.
15	27/10/2025 To 01/11/2025	Revision
16	03/11/2025 To 08/11/2025	Phylogeny of horse. Evolution of man.
17	10/11/2025 To 15/11/2025	Unit test- II & Revision
18	17/11/2025 To 18/11/2025	Revision



Signature of Faculty

CLASS 8-SC Life Science. - Lesson Plan - for Session - 2025-26

Subject - DSC (Zoology)

16-19 July 2025	Phylum:- Protozoa i) General characters and classification. ii) Type study of Plasmodium. (Malarial parasite)
21-26 July 2025	Phylum: Porifera - General characters and classification
28 July - 2 Aug 2025	Phylum: Porifera: Scypha (Sycon) ii) Test and Revision
04-09 Aug 2025	Phylum: Coelenterata:- General characters and classification
11-16 Aug 2025	i) Type study - Obelia ii) Revision
18-23 Aug 2025	Phylum:- Platyhelminthes: General characters and classification.
25-30 Aug 2025	Type study :- Fasciola hepatica (Sheep Liver fluke)
01-06 Sept 2025	Phylum Aschelminthes:- General characters & classification
08-13 Sept 2025	Revision and unit test
15-20 Sept 2025	Phylum:- Annelida: General characters & classification
22-27 Sept 2025	Type study of - Pheretima posthuma (Earthworm)
29 Sept - 4 Oct 2025	Phylum Arthropoda: General characters & classification
06-13 Oct 2025	Type study: Periplaneta americana (Cockroach)
14-22 Oct 2025	Deepawali vacation
23-25 Oct 2025	Phylum:- Mollusca:- General characters and classification
27 Oct - 01 Nov 2025	Type study - Pila globosa (An apple snail)
03-08 Nov 2025	Phylum Echinodermata:- General characters & classification
10-15 Nov 2025	Type study - Asterias (Sea star)
17 Nov	Phylum Hemichordata:- General characters & classification Revision

Lesson Plan for Session - 2025-2026

Class - BSc ^{Ist} Physical Science Semester - Ist

Subject:- Minor Zoology

16-19 July 2025

Origin of evolutionary thought

21-26 July 2025

Linnaeus, Wallace theory

28 July - 2 Aug 2025

Theory of evolution by natural selection.

04-09 Aug 2025

Revision & Test

11-16 Aug 2025

Forces of evolution

18-23 Aug 2025

Formation of species.

25-30 Aug 2025

Natural selection, Genetic drift

01-06 Sept 2025

Gene flow and Founder effect.

08-13 Sept 2025

Revision and unit test

15-20 Sept 2025

Human evolution and races

22-27 Sept 2025

Human adaptation, Life history, ^{Primate} ~~Sociality~~ ^{Sociality}

29 Sept - 4 Oct 2025

Social behavior and culture.

06-13 Oct 2025

Origin of sociality in humans

14-22 Oct 2025

Deepawali Vacation

23-25 Oct 2025

Test and Revision

27 Oct - 01 Nov
2025

The hominin record, Early hominin.

03-08 Nov 2025

Australopithecus, Evolution of human behavior

10-15 Nov 2025

Neanderthals

17 Nov.

Origin and evolution of Contemporaries

Revision and test.

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IInd B.Sc. Physical Science Lesson Plan for Session-2025-26

Semester - III

Subject - Minor Zoology

28 July to 2 Aug 2025	Introduction - What is fisheries biology.
04-09 Aug 2025	Sampling strategies, Streams
11-16 Aug 2025	Physical sampling, Electrofishing in fisheries
18-23 Aug 2025	Safety in Fisheries Work
25-30 Aug 2025	A growing threat to global fisheries
01-06 Sept 2025	Climate change impact on fisheries
08-13 Sept 2025	Revision & Unit test
15-20 Sept 2025	Fish measurement, Lake and Reservoir
22-27 Sept 2025	Physical characteristic and processes.
29 Sept - 04 Oct 2025	Revision
06-13 Oct 2025	Role of hatcheries in fisheries management
14-22 Oct 2025	Deepawali Vacation
23-25 Oct 2025	Revision and test
27 Oct - 01 Nov 2025	Lake: Sampling fishes and Plankton
03-08 Nov. 2025	Reservoirs sampling fishes and Plankton
10-15 Nov. 2025	Streams and lake reclamation,
17 Nov -	Fishes handling and transport
	Revision.

Sushant

28 July to 2 Aug 2025	Microtomy : Introduction & definition
04-09 Aug 2025	History and application in Biological Science
11-16 Aug 2025	Types of Microtomes - Rotary microtomes
18-23 Aug 2025	Sledge Microtomes and Cryomicrotomes
25-30 Aug 2025	Revision and Test
01-06 Sept 2025	Collection and transportation of sample/specimens for histological examination.
08-13 Sept 2025	Basic concepts of fixation
15-20 Sept 2025	Various types of fixatives used in microtomy
22-27 Sept 2025	Process of fixation, Embedding - Block formation.
29 Sept - 04 Oct 2025	Section cutting: Paraffin section cutting, stretching - spreading the sections and attachment to glass slide.
06-13 Oct 2025	Staining - Principle and procedure, Preparation of stain & solvents
14-22 Oct 2025	Deepawali Vacation
23-25 Oct 2025	General staining procedure for Paraffin Embedded tissue, Nuclear stains
27 Oct - 01 Nov 2025	Cytoplasmic stain - Haematoxylin & Eosin staining
03-08 Nov. 2025	Mercury Bromophenol
10-15 Nov. 2025	Blue staining, Toluidine Blue, Commonly used mountants in microtomy
17 Nov - 2025	Revision & Unit test
	Revision.

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Lesson Plan for Session-2025-26

Class - B.Sc ^{III} year, Semester - ^Vth Subject - Zoology

28 July to 2 Aug 2025	Introduction to world fisheries : Production utilization and demand.
04-09 Aug 2025	Fresh water fisheries of India: River system, reservoir, pond fisheries.
11-16 Aug 2025	Tank fisheries, captive and culture fisheries, cold water fisheries.
18-23 Aug 2025	Revision and Unit test.
25-30 Aug 2025	Fishing crafts and gears.
01-06 Sep 2025	Fin fishes, Crustaceans
08-13 Sep 2025	Molluscs and their culture
15-20 Sep 2025	Revision and Unit test
22-27 Sep 2025	Seed production : Natural seed resources - its assessment, collection.
29 Sept - 04 Oct 2025	Hatchery production
06-13 Oct 2025	Nutrition: Sources of food (Natural, Artificial) and feed composition (Calorie and chemical ingredients)
14-22 Oct 2025	Deepawali Holidays.
23-25 Oct 2025	Revision and test
27 Oct - 01 Nov 2025	Field culture: Ponds - running water recycled water
03-08 Oct 2025 Nov.	Cage culture, poly culture.
10-15 Nov 2025	Culture technology: Biotechnology, gene manipulation
17-18 Nov	Cryopreservation of gametes.

Sushant