

# INDIRA GANDHI GOVT. COLLEGE PANDARIYA

## Department of Zoology

B.Sc. Program Outcomes:-

B.sc Program Specific Outcomes (PSOS):-

By the end of this course, the students will be able to :-

- 1- Understand the basic concepts of all the types of animals (Vertebrates and non-vertebrates).
- 2- Understand the evolution, classification, anatomical details of higher group of animals.
- 3- Analyze the cell organelles and application of genetics, molecular biology of animal cell.
- 4- Identify the bacteria, viruses and animal pathogens.
- 5- Analyze metabolic activities of animals.
- 6- Understand the application of genetic engineering for the improvement species of animals.
- 7- Understand the basic concepts of ecology
- 8- Perform the procedure of laboratory technique in biochemistry, biotechnology and important of animals.
- 9- Prepare the students for many competitive exams like MPSC, UPSC, NEET, SET, GATE.

S. No.	Class	Course (Paper)	Course Outcomes
1	B.Sc- I	Cytology	<ol style="list-style-type: none"><li>1. The cell structure in relation to function of cells the fundamental unit of life, are concerned in this course along with molecules present in cells.</li><li>2. Apply the principles of cell biology in designing experiment, statistical analysis, and interpretation of</li><li>3. Operate and solve exercise using computation statistics software.</li><li>4. Get acquainted with basic approach in the research methodology.</li></ol>
		Protozoan	<ol style="list-style-type: none"><li>1. Understand the basic concept of bacteria, viruses and protozoan.</li><li>2. Analyze economic importance of bacteria and virus.</li><li>3. Discuss the life cycle of protozoan.</li></ol>
2	B.Sc.- II	Animal Physiology	<ol style="list-style-type: none"><li>1. Students will be able to Understand the various physiology life processes in animals.</li><li>2. They Understand the role of various hormones, signaling</li></ol>



			<p>compounds, thermodynamics and enzyme kinetics.</p> <p>3. During the course student will gain knowledge about the various mechanisms such as digestion, respiration circulation and reproduction.</p>
		Metabolism	<p>1. After completion of the course the students are familiar with various physiology aspects involved in the plant development.</p> <p>2. Also the role of enzymes in it and mechanism of photosynthesis, respiration, nitrogen and lipid metabolism.</p> <p>3. The student are able to isolate starch, pectin and various nutritive products form the plants..</p> <p>4. Quantities and quantification of the animal cell content and its biochemistry and mode/mechanism of synthesis etc.</p>
3	B.Sc.- III	Genetics	<p>1. After successful completion of this course, students will be able to Acquaint with the concepts in prokaryotic, eukaryotic and viral genetics</p> <p>2. Explain central dogma of molecular biology (replication, transcription and translation).</p> <p>3. Enlist and explain types of mutation, gene regulation and transposable element.</p> <p>4. Conversant with laboratory Techniques via, Microscopy, SEM and TEM, Ultracentrifugation, PCR, GISH, FISH and immunochemical techniques. The flow cytometer and confocal microscopy in karyotype analysis.</p> <p>5. Isolation of plant DNA and its quantification. Isolation of RNA and its quantitation. Estimation of seed proteins.</p>
		Microbiology, Phycology and Mycology	<p>1. Comprehend the diversity of lower cryptograms (Algae, Fungi, Bacteria, Phytoplasam and viruses.). Collection and study of algae, fungi, bacteria from different localities, identification up to generic level.</p>

			<ol style="list-style-type: none"> <li>2. Recognize the morphology, anatomy, physiology, reproduction and lifecycle pattern.</li> <li>3. Their diversification and familiarize with various ecological niche.</li> <li>4. Positive and negative values.</li> </ol>
		Metabolism	<ol style="list-style-type: none"> <li>1. After completion of the course the students are familiar with various physiology aspects involved in the plant development.</li> <li>2. Also the role of enzymes in it and mechanism of photosynthesis, respiration, nitrogen and lipid metabolism.</li> <li>3. The student are able to isolate starch, pectin and various nutritive products from the plants.</li> <li>4. Quantities and quantification of the animal cell content and its biochemistry and mode/mechanism of synthesis etc.</li> </ol>
		Ecology -I	<ol style="list-style-type: none"> <li>1. On completion of this course the students are able to analyze various types of ecosystems, correlate different ecosystems.</li> <li>2. To analyze the threat and suggest conservation measure.</li> <li>3. The student are also trained in the environmental impact analysis.</li> <li>4. Student are able to analyze, monitor various physical, chemical and biological properties of soil water and air.</li> </ol>


