


**Department of Zoology**  
**Course Outcomes (COs)**

Class	Course	<i>After completion of these courses students will be able to;</i>
B.Sc.-I	Zoology Sem.-I Paper-I	<ol style="list-style-type: none"> <li>1. Classify Protista up to classes and Locomotory organ and its locomotion.</li> <li>2. Classify Phylum Porifera up to classes and canal system in sycon.</li> <li>3. Describe the phylum Cnidaria up to classes and its polymorphism.</li> <li>4. Explain the life history, classification and Parasitic Adaptations of Taenia solium.</li> <li>5. Explain the life history, classification and Parasitic Adaptations of Ascaris lumbricoides.</li> <li>6. Classify Annelida up to classes and its Metamerism.</li> <li>7. Classify Arthropoda up to classes and describe its Vision and Metamerism.</li> <li>8. Classify Mollusca up to classes and describe Torsion in gastropods.</li> <li>9. Classify Echinodermata up to classes and describe the water vascular system in Asteroidea.</li> </ol>
B.Sc.-I	Zoology Sem.-I Paper-II	<ol style="list-style-type: none"> <li>1. Explain the Structure of a neuron.</li> <li>2. Explain the Resting membrane potential.</li> <li>3. Describe the Origin of action potential and its propagation in non-myelinated nerve fibers.</li> <li>4. Describe the Ultra-structure of skeletal muscle &amp; Molecular and chemical basis of muscle contraction.</li> <li>5. Describe the Physiology of Digestion in the alimentary canal and absorption of carbohydrates, lipids and proteins.</li> <li>6. Describe the Pulmonary ventilation and transport of oxygen and carbon dioxide in blood.</li> <li>7. Explain the structure of Nephron and its Mechanism of Urine Formation and counter-current.</li> <li>8. Describe the composition of blood.</li> <li>9. Explain the Structure functions and working of Heart.</li> </ol>

<b>B.Sc. -I</b>	<b>Zoology Sem.-II Paper. III and Paper. IV</b>	<ol style="list-style-type: none"> <li>1. Describe Cell theory and diversity of cell shape and size.</li> <li>2. Explain the structure of Nucleus with respect to the Nuclear Membrane,</li> <li>3. Nucleoplasm, chromatin and Nucleolus.</li> <li>4. Describe ultrastructure and function of Plasma Membrane (Fluid Mosaic Model), Mitochondria, Endoplasmic Reticulum, Golgi Complex and Lysosomes.</li> <li>5. Explain Major events in history of life.</li> <li>6. Describe the Evolutionary theories predicts Lamarckism, Darwinism and Neo-Darwinism.</li> <li>7. Describe the Direct Evidence of Evolution.</li> <li>8. Describe the Mass Extinction and its role in Evolution.</li> </ol>
<b>B.Sc. -II</b>	<b>Zoology Sem.-III Paper. V and Paper – VI</b>	<ol style="list-style-type: none"> <li>1. Explain the principles Incomplete and complete Linkages.</li> <li>2. Explain the Mechanism, Cytological evidence significance of Linkage and of Crossing over.</li> <li>3. Describe the Polytene Chromosome-structure and its significance</li> <li>4. Describe the morphology of Sex Chromosomes.</li> <li>5. Explain the Chromosomal Theory of sex determination.</li> <li>6. Explain the Genic Balance Theory.</li> <li>7. Explain the Environmentally controlled sex determination (Bonela)</li> <li>8. Describe the types of gynanders found in nature.</li> <li>9. Explain the Causes and process of formation of gynanders</li> <li>10. Explain the concept of Supplementary and Complementary genes with suitable example.</li> <li>11. Explain the concept of Fully and Semi lethal genes with suitable example</li> <li>12. Explain the process of formation of Twins in humans</li> <li>13. Explain the Water Properties, Dissociation and Significance.</li> <li>14. Explain the pH definition, Henderson-Hasselblanch Equation.</li> <li>15. Explain the Buffers in Biological Systems</li> <li>16. Explain the structure and biological significance of DNA</li> <li>17. Explain the structure, types and biological significance of RNA</li> <li>18. Explain the Classification, Characteristics, Mechanism and Factors controlling enzyme action.</li> <li>19. Explain the Mechanism of Isoenzymes, Co-factors and Co-enzymes.</li> <li>20. Explain the Significance of metal ions with reference to human body Iron ii. Calcium iii. Sodium iv. Potassium v. Copper.</li> </ol>

B.S.c. -II	Zoology  Sem.-IV  Paper-VII	<ol style="list-style-type: none"> <li>1. Identify and classify the examples of Class Reptilia, Class Aves and Mammals.</li> <li>2. Identify and classify the poisonous and non poisonous snakes.</li> <li>3. Explain Venom, antivenom production and its effects on human body.</li> <li>4. Identify Snake bite explain first aid treatment</li> <li>5. Describe the Systematic position, Habits and habitat and Morphology of Rat.</li> <li>6. Identify the difference between male and female Rat</li> <li>7. Describe the digestive system of Rat</li> <li>8. Explain the physiology of digestion, Circulatory, Excretory Respiratory and Reproductive system, process of excretion and physiology of respiration of Rat.</li> <li>9. Describe the sense organ structure and working in Rat</li> <li>10. Explain the Aerial adaptations in birds.</li> <li>11. Explain the Migration in birds</li> <li>12. Explain the Dentition in mammals.</li> <li>13. Explain the salient features and affinities of monotremes and marsupials.</li> <li>14. Differentiate monotremes and marsupials.</li> </ol>
B.Sc.- II	Zoology  Sem.-IV  Paper-VIII	<ol style="list-style-type: none"> <li>1. Explain the histological structure of Tooth, Tongue, Salivary gland, Duodenum, Ileum, Liver and Pancreas.</li> <li>2. Explain the histological structure of Kidney, Ovary, Testis, Uterus and Pituitary gland.</li> <li>3. Explain the Hormones of pituitary gland, Oestrous cycle and Menstrual cycle.</li> <li>4. Explain the Hormonal control of pregnancy parturition and lactation.</li> <li>5. Differentiate male and female Sex hormones.</li> <li>6. Explain the In-vitro and significance of fertilization.</li> <li>7. Explain the Immune system and types of Immune system</li> <li>8. Explain the Humoral immunity and its mechanism.</li> <li>9. Explain the Cellular immunity and its mechanism.</li> <li>10. Explain the Organs involved in immune system</li> <li>11. Explain the Bone marrow cells and role in immunity.</li> <li>12. Explain the role of Lymphatic Nodes role.</li> </ol>



  
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