

B.Sc. Forensic Science: Semester-II	
FST 206: Zoology-II	
Teaching Scheme	Examination Scheme
Lectures: 3 hrs/Week	Class Test -12 Marks
Tutorials: 1 hr/Week	Teachers Assessment – 6 Marks
Credits: 4	Attendance – 12 Marks
	End Semester Exam – 70 marks

Course outcomes:

The student at the completion of the course will learn:

- To develop a deep understanding of structure of biomolecules like proteins, lipids and carbohydrates
- How simple molecules together form complex macromolecules.
- To understand the thermodynamics of enzyme catalyzed reactions.
- Mechanisms of energy production at cellular and molecular levels.
- To understand systems biology and various functional components of an organism.
- To explore the complex network of these functional components.
- To comprehend the regulatory mechanisms for maintenance of function in the body.

Unit I – Structure and Function of Biomolecules

- Classification, Structure and function of Carbohydrates, Lipids, Protein, Enzyme, Nucleic Acid.

Unit II – Digestion and Respiration

- Structural organization and functions of gastrointestinal tract and associated glands
- Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins; Histology of trachea and lung
- Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities; Transport of oxygen and carbon dioxide in blood Respiratory pigments, Dissociation curves and the factors influencing it; Control of respiration

Unit III – Circulation and Excretion

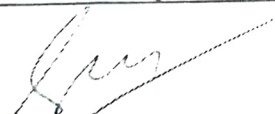
- Components of blood and their functions
- Haemostasis: Blood clotting system, Blood groups: Rh factor, and ABO.
- Structure of mammalian heart, Double circulation.
- Cardiac cycle; Cardiac output and its regulation, Electrocardiogram, Blood pressure and its regulation
- Structure of kidney and its functional unit; Mechanism of urine formation

Unit IV – Muscular System

- Histology of different types of muscle; Ultra structure of skeletal muscle;
- Molecular and chemical basis of muscle contraction.

Unit V – Nervous System

- Structure of neuron, and its types
- Structure and Types of synapse.
- Nerve impulse in myelinated and Non-myelinated neuron


Head

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