

Unique Paper Code : 32231402

Name of the Paper : Physiology: Life Sustaining systems

Name of the Course : B.Sc. (Hons) Zoology (CBCS)

Semester : IV

Duration : 2 hrs

Maximum Marks : 75 marks

Instruction for Students

- Attempt **ANY FOUR** questions. All questions carry equal marks
- Write your Roll No., Name of the paper, Course, Semester, and Date of examination on the first page of answer sheet.
- **Draw** neat and well-labelled diagrams for all questions.

- Q1. Why are large amounts of solutes filtered out, and then reabsorbed by the kidneys back into circulation? Add a note on the detailed structure of renal filtration membrane.
- Q2. Write an essay on hormonal regulation of digestion. Illustrate the functional histology of accessory organs of the GI tract?
- Q3. Why is the plateau phase so critical to cardiac muscle function? Explain how an action potential occurs in cardiac contractile fibers.
- Q4. Outline the steps involved in quiet breathing. Explain the respiratory rate and how is it regulated?
- Q5. Haemostasis occurs in response injury in blood vessels. Critically summarize the sequence of events in maintaining the blood flow. Deliberate upon the coagulation pathways.
- Q6. Discuss why and how does the absorption of digested lipids take an entirely different route than the carbohydrates and proteins? What are all the other substances it takes along?