

Mode of Examination: Open Book Examination

Unique Paper Code	: 42234301
Name of the Paper	: Physiology and Biochemistry
Name of the Course	: B.Sc. (P) Life Science Zoology Examination, 2021-LOCF
Semester	: Semester- III, Theory Examination
Duration	: 3 hours
Maximum Marks	: 75 Marks

Instruction for Candidates

1. Write your Roll No., Name of the paper, Course, Semester, UPC and Date of examination on the first page of answer sheet.
2. Attempt **ANY FOUR** questions in all, **TWO** each from Section A and Section B.
3. Use separate sheet for **Section A** and **Section B**.
4. All questions carry equal marks.
5. Draw well labelled diagrams wherever required.

SECTION A

- Q1. Define pacemaker. Write in detail the origin, conduction and regulation of heartbeat. Describe the various events associated with the Cardiac cycle. (18.75)
- Q2. Explain the detailed structure of pituitary gland. Give the names and functions of hormones secreted by it. Discuss the hormonal control of the menstrual cycle. (18.75)
- Q3. Describe the mechanism of dilute urine formation in kidney nephron. Add a note on hormones of adrenal gland. (18.75)

SECTION B

- Q4. Describe the various steps involved in oxidation of fatty acids. Discuss in brief components of Electron Transport Chain. (18.75)
- Q5. What is an enzyme? Explain the action of enzymes with special reference to induced fit theory. Derive the Michaelis Menten equation for single enzyme single substrate reaction. (18.75)
- Q6. Give an account of Citric Acid Cycle. Explain the process of glycogenolysis. How is it regulated? (18.75)