

OPEN BOOK EXAMINATION (OBE) MODE

This question paper contains 1 printed page]

Sr. No. of Question Paper

Roll No.

Unique paper Code : 42234301_OC

Name of the paper : Physiology and Biochemistry

Name of the Course : B.Sc. (P) Life Sciences

Semester : III

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

- ⌚ Attempt 4 questions in all including 2 questions from section A and 2 from Section B.
- ⌚ 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 wherever necessary.

(Section A)

Q1. What is the smallest contractile unit of the muscle? How does the muscle proteins slide past each other to generate movement? 18.75

Q2. Give a brief-account of the mechanism used to concentrate urine in the kidneys by the nephrons of the human excretory system? What is the structure and function of nephron? 18.75

Q3. Carbohydrates are not chemically broken down in the stomach. How carbohydrates are digested and absorbed? Where does chymotrypsin take action? 18.75

(Section B)

Q4. Give a detailed account of glycogenesis and glycogenolytic pathway. Explain how glycogenolysis is different from gluconeogenesis? 18.75

Q5. Explain β -oxidation of fatty acids. 18.75

Q6. What evidences suggest the formation of enzyme substrate complexes. Explain the relation between rate of reaction and concentration of substrate. 18.75