

AS/2110

B.Sc. Semester I
ZOOLOGY

5197/NH

Paper : I Cell Biology

Time Allowed: Three Hours

Maximum Marks: 40

Note: - Attempt five questions in all. Section C is compulsory. Select two questions from Section A and two questions from Section B. Draw diagrams wherever necessary.

SECTION-A

1. Describe the structure of eukaryotic cells with well labeled diagram. 6
2. Describe various models that show the ultrastructure of plasma membrane. 6
3. Explain the mechanism of Active transport 6
4. Write short notes on:
 - a) Endocytosis
 - b) Tight Junctions
 - c) Endoplasmic Reticulum 2,2,2

SECTION-B

5. a) Explain difference between euchromatin and heterochromatin
b) Mitochondrial Respiratory Chain
6. Write about the structure and functions of Microfilaments and Intermediate filaments. 6
7. Write about the following:
 - a) Structure of Nucleus
 - b) Cell cycle and its regulation 3,3
8. Write down difference between Mitosis and Meiosis. 6

SECTION-C

9.
 - 1) Physical Properties of Protoplasm
 - 2) Difference between magnification and resolution
 - 3) Organisation of prokaryotic cell
 - 4) Exocytosis
 - 5) Nuclear Pore
 - 6) Endosymbiotic Hypothesis
 - 7) Lysosomes
 - 8) Microtubules