

2 MN 61101

Four Year B.Sc. HONOURS (CBCS) DEGREE EXAMINATION, APRIL/MAY 2024.

SECOND SEMESTER

Zoology (Minor)

Course – I – ANIMAL DIVERSITY – I BIOLOGY OF NON-CHORDATES

(w.e.f. 2023–24 Admitted Batch)

Time : 3 hours

Maximum : 70 marks

(No additional sheet will be supplied)

SECTION A — ($5 \times 4 = 20$ marks)

Answer any FIVE of the following.

Each question carries 4 marks.

(Draw labelled diagrams wherever necessary)

1. Whittaker's five kingdom concept.
2. Nutrition in Protozoa.
3. Calcarea.
4. Corals.
5. Turbellaria.
6. Ascariasis.
7. Vermicompost.
8. Arthropoda general characters.
9. Cephalopoda.
10. Balanoglossus.

SECTION B — ($5 \times 10 = 50$ marks)

Answer FIVE of the following.

Each question carries 10 marks.

(Draw diagrams wherever necessary).

11. Write the general characters and classification of Phylum Protozoa up to classes with examples.

Or

12. Discuss about the Sexual reproduction in Protozoa.

13. Explain the types of Canal system in Sponges.

Or

14. Describe the Polymorphism in Coelenterates.

15. Write about the parasitic adaptations in Helminthes.

Or

16. Explain about the Life cycle of Ascaris.

17. Describe the general characters and classification of Phylum Annelida up to classes.

Or

18. Explain the Structure and affinities of Peripatus.

19. Describe the Water vascular system in Starfish.

Or

20. Explain about the pearl formation in Pelecypoda.

2 MJ 61104

FOUR YEAR B.Sc. (Honours) (CBCS) DEGREE EXAMINATION, APRIL/MAY 2024.

SECOND SEMESTER

Zoology – (Major)

Course IV – CELL AND MOLECULAR BIOLOGY

(w.e.f. 2023 – 2024 Admitted Batch)

Time : Three hours

Maximum : 70 marks

(No additional sheet will be supplied)

PART A — (5 × 4 = 20 marks)

Answer any FIVE of the following.

Each question carries 4 marks.

(Draw labelled diagrams wherever necessary)

1. Mycoplasma.
2. Structure of animal cell.
3. Mitochondria.
4. Lysosomes.
5. Cell cycle.
6. Electron Transport System.
7. Structure of DNA.
8. Central dogma theory.
9. Gene Expression in eukaryotes.
10. Bio-molecules.

PART B — (5 × 10 = 50 marks)

Answer FIVE of the following.

Each question carries 10 marks.

(Draw diagrams wherever necessary)

11. (a) Distinguish between the differences between the Prokaryotic and Eukaryotic cells.

Or

- (b) Explain the different models of Plasma membrane.

12. (a) Describe the structure and functions of Endoplasmic reticulum.

Or

(b) Write about the structure and functions of Chromosomes.

13. (a) Give an account on Meiosis.

Or

(b) Explain the process of Glycolysis.

14. (a) Write an essay on DNA replication process.

Or

(b) Describe the steps involved in Translation in Prokaryotes.

15. (a) Explain the Gene Expression in Prokaryotes.

Or

(b) Write the structure, properties and biological importance of Amino acid.
