



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours Part-I Examination, 2021



ZOOLOGY

PAPER: ZOOA-I

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

1. Answer any **one** question from the following: 1×1 = 1
 - (a) Why are protozoans called acellular animals?
 - (b) Name the phyla of *Opalina* and *Plasmodium*.
 - (c) What is osphradium?
 - (d) What is contractile vacuole?

2. Answer **one** question from the following: 3×1 = 3
 - (a) State the significance of conjugation in paramoecium.
 - (b) Mention the salient features of phylum ctenophora.

3. Answer any **one** question from the following: 5×1 = 5
 - (a) Describe the mechanism of excretion through malpighian tubules with labelled diagramme.
 - (b) Draw a labelled diagramme and describe briefly a typical flame cell.

4. Answer any **seven** questions from the following: 1×7 = 7
 - (a) What is mantle?
 - (b) What is stone canal?
 - (c) What do you mean by bi-radial symmetry?
 - (d) Why are the coral reefs called 'rainforest of sea'?
 - (e) What is siphonozoid?
 - (f) What is parapodia?
 - (g) What are ex-conjugants?
 - (h) Name two larval forms of platyhelminthes.
 - (i) Define polyp.
 - (j) What is nuchal organ?
 - (k) What do you mean by dactylozoid?
 - (l) What is mesohyl layer?

5. Answer any **one** question from the following: 3×1 = 3
- (a) Briefly describe the significance of coelome.
 - (b) What is the significance of polymorphism in *cnidaria*?
 - (c) Describe different types of nephromyxia.
 - (d) Draw and describe the bipinnaria larva.
 - (e) Mention the subclasses of phylum Annelida with examples.
 - (f) Describe the haemal system of echinodermata.
 - (g) What do you know about the significance of coral reefs?
 - (h) What is cyclomorphosis? Where do you come across this?
6. Answer any **one** question from the following: 5×1 = 5
- (a) To which phyla do the following structures belong? Mention one function of each.
(i) Lophophore (ii) Pseudopodia (iii) Corona (iv) Comb-plate (v) Book-gill
 - (b) Name the phylum and class of following animals:
(i) Sea-mouse (ii) Neptune's cup (iii) *Lamellidens* (iv) Sponge (v) *Ancylostoma*
 - (c) Compare the water vascular system of asteroids with holothuroids.
 - (d) Describe the gas exchange process by book-lungs with labelled diagramme.
 - (e) Describe the mechanism of tracheal respiration in insects.
 - (f) Explain the characteristic features of tornaria larva with labelled diagramme.
7. Answer any **seven** questions from the following: 1×7 = 7
- (a) What is dorsal lamina?
 - (b) What do you mean by Urochordata?
 - (c) What is endostyle?
 - (d) What is foramen of Panizza?
 - (e) What is Filoplume?
 - (f) Give generic name of two limb-less amphibian.
 - (g) Mention two characteristic features of prototherian mammals.
 - (h) Justify the name 'cephalochordata'.
 - (i) What do you mean by chordamesoderm?
 - (j) Where do you find cycloid and ctenoid scales?
 - (k) What do you mean by amphicoelous vertebra?