

**UG 1st Semester Examination 2021**  
**ZOOLOGY (Honours)**

**Paper : DC2**  
**(Non-Chordates II (Coelomates))**  
**[CBCS]**

Full marks: 25

Time: Two Hours

*The figures in the margin indicate full marks.*

*Candidates are requested to give their answers in their own words as far as practicable.*

1. Answer any *eight* questions:  $\frac{1}{2} \times 8 = 4$

- (a) The clitellum of earthworm is concerned with \_\_\_\_\_ (Fill in the blank).
- (b) What is the characteristic feature common to all insects?
- (c) Radula is primarily composed of \_\_\_\_\_. (Fill in the blank).
- (d) In earthworm fertilization occurs in \_\_\_\_\_. (Fill in the blank).
- (e) The one feature common to all Molluscs is the presence of \_\_\_\_\_. (Fill in the blank).
- (f) In echinoderms anus develops from blastopore. (True or False?)
- (g) Statolith is a sense organ that helps in \_\_\_\_\_. (Fill in the blank).
- (h) Give an example of wing-less insect.
- (i) Name the notochord-like structure found in Hemichordata.
- (j) The study of Mollusca is known as \_\_\_\_\_. (Fill in the blank).
- (k) Serial repetition of body organs in segments is called \_\_\_\_\_.
- (l) Respiratory pigment in Mollusca is \_\_\_\_\_.

2. Answer any *two* questions:  $2\frac{1}{2} \times 2 = 5$

- (a) Why is *Peripatus* regarded as a connecting link between Annelida and Arthropoda?
- (b) Enumerate four distinctive characters of Arachnida.
- (c) Differentiate schizocoelom and enterocoelom.
- (d) Briefly write about different types of mouth parts found in insects.

3. Answer any *four* questions:

4×4=16

- (a) Write the types of nephridia along with their location found in earthworm. State the function of chloragogen cells of earthworm. (3+1=4)
- (b) With a neat diagram briefly describe the different parts of the water vascular system of *Asterias* sp.
- (c) With a neat diagram briefly describe the different parts of the ommatidium.
- (d) Give an account of the nervous system of *Pila globosa*.
- (e) Write the salient features of phylum Hemichordata. Add a note on tornaria larva. (2+2=4)
- (f) Write the general characteristics of phylum Echinodermata. State the salient features of Bipinnaria larva. (2+2=4)
- (g) Define metamorphosis. Write the role of juvenile hormone in metamorphosis of insects. (1+3=4)