

2024

ZOOLOGY — HONOURS

Paper : CC-3

[Non-Chordate - II (Coelomate Phyla)]

Full Marks : 50

The figures in the margin indicate full marks.

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

Question no. 1 is compulsory and answer **any four** questions from the rest.

1. Answer **any five** questions :

2×5

- (a) What is schizocoelom?
- (b) Differentiate between radial canal and ring canal.
- (c) Write the scientific name of silver fish and cuttle fish.
- (d) Define pseudometamerism. Give example.
- (e) Mention two significance of tornaria larva.
- (f) What is chloragogen cell?
- (g) Why *Balanoglossus* is also called as Tongue worm?
- (h) What is Aristotle's lantern?
- (i) What is trophallaxis?

2. (a) Justify the statement with proper reasons :

- (i) Spider is an Arachnida
- (ii) *Pila* is a Gastropod.
- (b) Give the systematic position of
 - (i) *Balanus* sp.
 - (ii) *Aphrodite* sp.

(2½×2)+(2½×2)

3. (a) Explain the antagonistic role of juvenile hormone and moulting hormone in insect.

(b) Mention the caste system of a termite colony according to the division of labour.

5+5

Please Turn Over

4. Distinguish between—

2½×4

- (a) Ophiopluteus and Echinopluteus
- (b) Stomochord and Notochord
- (c) Holometabolous and Hemimetabolous
- (d) Open and Closed Circulatory Systems.

5. (a) Write the location and function of following structures :

- (i) Tiedemann's body
- (ii) Prothoracic gland
- (iii) Ctenidium.

(b) Describe the process of aerial respiration in *Pila* sp.

(2×3)+4

6. (a) What are microphagous and macrophagous animals?

(b) What do you mean by haemal coelom? Write its significance.

(c) What is monopectinate gill?

3+(2+2)+3

7. (a) Describe the structure and function of following haemocytes in cockroach :

- (i) Prohaemocyte
- (ii) Plasmocyte
- (iii) Granulocyte.

(b) Write down the functions of Radula and Osphradium.

(2×3)+4

8. (a) What are blastopore and blastodermic vesicle?

(b) State the characteristic features (any three) of class Bivalvia with examples.

(c) What do you mean by Organ of Bojanus? State briefly its function.

3+3+(2+2)