

(6 pages)

Reg. No. :

Code No. : 7443

Sub. Code : ZZOM 11

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

First Semester

Zoology – Core

STRUCTURE AND FUNCTIONS OF
INVERTEBRATES

(For those who joined in July 2021 – 2022 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Bentham and Hooker gave which system of classification?
- (a) numerical
(b) phylogenetic
(c) artificial
(d) natural

6. The yellow colour of urine is due to the presence of
- (a) Bile (b) Lymph
(c) Cholesterol (d) Urobilin
7. Which of the following is the property of a neuron?
- (a) Conductivity
(b) Excitability
(c) Both of these
(d) None of these
8. How many pairs of ganglia have fused together to form the insect brain?
- (a) two (b) three
(c) four (d) six
9. Bipinnaria larva is the free-swimming larva of
- (a) Antedon
(b) Star-fish
(c) Echinus
(d) Holothuria
10. Mysis is a larva of
- (a) star fish (b) penaeus
(c) aurelia (d) amoeba

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2. Linnaeus evolved a system of nomenclature called
- (a) vernacular (b) monomial
(c) binomial (d) polynomial
3. The skeleton supported by fluid pressure, and common among simple invertebrate organisms is called as
- (a) Hydrostatic skeleton
(b) Exoskeleton
(c) Endoskeleton
(d) None
4. The chief function of nematocyst is
- (a) to paralyse its prey
(b) to test the quality of water
(c) to capture its prey
(d) to test the quality of food
5. The subclass of Bivalvia in which gills degenerate and respiratory function is entirely taken up by the mantle
- (a) Protobranchia
(b) Septibranchia
(c) Filibranchia
(d) Eulamellibranchia

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, Choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Distinguish between Protostomia and Deuterostomia.
- Or
- (b) Explain the process of identification of species.
12. (a) Describe the locomotory organelle in euglena.
- Or
- (b) Illustrate the hydrostatic movements in Annelids.
13. (a) List out the types of gills.
- Or
- (b) Explain the tubular and neurogenic heart.
14. (a) Write the nereis nervous system.
- Or
- (b) Explain the nervous system of pila.

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[P.T.O.]

15. (a) Illustrate the crustacean larval forms.

Or

(b) Write the distinctive characters of Acanthocephala.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss the rules of nomenclature.

Or

(b) Describe the cytological approach in taxonomy.

17. (a) Describe the feeding mechanism in Mollusca.

Or

(b) Illustrate the feeding mechanism in arthropods.

18. (a) Enumerate the Mechanism of respiration.

Or

(b) Describe role of Malpighian tubules in excretion.

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19. (a) Specify the nervous system of cockroach.

Or

(b) Discuss the trends in neural evolution.

20. (a) Illustrate the salient features of Brachiopoda.

Or

(b) Describe the salient features and affinities of Ectoprocta.

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