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(FYUGP)

(2nd Semester)

ZOOLOGY

(MINOR)

Paper : ZOO/M2

(Non-Chordates II : Coelomates)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

*The figures in the margin indicate full marks
for the questions.*

(PART : A—OBJECTIVE)

(Marks : 25)

Choose the correct answer :

1×15=15

1. Coelom is best defined as

- (a) body cavity filled with fluid
- (b) cavity between ectoderm and endoderm
- (c) body cavity lined by mesoderm
- (d) space filled with parenchyma

2. Schizocoelom is formed by
 - (a) outpocketing of archenteron
 - (b) splitting of mesoderm
 - (c) degeneration of blastocoel
 - (d) fusion of coelomic sacs
3. One evolutionary advantage of metamerism is
 - (a) reduced body surface
 - (b) splitting of mesoderm
 - (c) degeneration of blastocoel
 - (d) fusion of coelomic sacs
4. Onychophorans are considered as
 - (a) fully annelidan
 - (b) fully arthropodan
 - (c) connecting link between Annelida and Arthropoda
 - (d) connecting link between Mollusca and Arthropoda
5. The body of annelid shows
 - (a) radial symmetry
 - (b) asymmetry
 - (c) bilateral symmetry
 - (d) biradial symmetry

6. Which class of Annelida possesses parapodia?
- (a) Oligochaeta
 - (b) Hirudinea
 - (c) Polychaeta
 - (d) Archiannelida
7. The respiration in annelids occurs mainly through
- (a) tracheae
 - (b) gills
 - (c) skin
 - (d) book lungs
8. The exoskeleton of arthropods is mainly composed of
- (a) cellulose
 - (b) keratin
 - (c) chitin
 - (d) calcium phosphate
9. Book lungs are the characteristic of
- (a) Crustacea
 - (b) Insecta
 - (c) Arachnida
 - (d) Myriapoda

10. Arrhenotoky produces
- (a) only females
 - (b) only males
 - (c) both sexes
 - (d) sterile individuals
11. Statocysts in mollusc function in
- (a) vision
 - (b) hearing
 - (c) balance and orientation
 - (d) smell
12. During torsion, the visceral mass rotates
- (a) 90°
 - (b) 120°
 - (c) 180°
 - (d) 360°
13. Pearl is formed due to
- (a) excess calcium secretion
 - (b) injury or foreign particle inside mantle
 - (c) infection by bacteria
 - (d) normal growth of shell

14. The respiration in echinoderm occurs through

- (a) gills
- (b) tracheae
- (c) tube feet and dermal branchiae
- (d) skin only

15. The most common larval form in Asteroidea is

- (a) Auricularia
- (b) Bipinnaria
- (c) Pluteus
- (d) Doliolaria

Write short notes on any *five* of the following :

2×5=10

- 1.** Metamerism
- 2.** Excretion in Annelida
- 3.** Economic importance of Annelida
- 4.** Respiration in Arthropoda
- 5.** Metamorphosis in insects
- 6.** Pearl formation in bivalves
- 7.** Tiedemann's bodies and tube feet
- 8.** Brachiolaria larva

(6)

(PART : B—DESCRIPTIVE)

(Marks : 50)

1. Explain the different types of coelom with proper illustrations. Add a note on the significance of coelom. 6+4=10

Or

Write the general characteristics of Onychophora. 10

2. Give the general characteristics of Annelida. 10

Or

Provide a comprehensive explanation of locomotion in Annelida with suitable diagrams.

3. Classify phylum Arthropoda up to classes with suitable examples. 10

Or

Write short notes on the following : 5+5=10

(a) Vision in Arthropoda

(b) Parthenogenesis in insects

4. Mention the general characteristics of phylum Mollusca. 10

Or

Elaborate on torsion and detorsion in Gastropoda.

5. Outline the classification of phylum Echinodermata up to classes with suitable examples.

10

Or

Give a detailed account on larval forms in Echinodermata with proper diagrams.

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