

**B.Sc. ZOOLOGY**  
**SECOND SEMESTER**  
**NON CHORDATES II: ANNELIDA TO ECHINODERMATA**  
**BSZ -201**

( Use Separate Answer Scripts for Objective & Descriptive )

Duration : 3 hrs.

Full Marks : 70

[ PART-A: Objective ]

Time : 20 min.

Marks : 20

*Choose the correct answer from the following:*

**1X20=20**

- In Earthworm, spermathecae are used for
  - Development of ovum
  - Development of sperm
  - Storing sperm
  - Storing ova
- Asteroidea contain the larval form
  - Bipinnaria larva
  - Ophiopluteus larva
  - Echinopluteus larva
  - Auricularia larva
- Which of the following type of coelom arises by splitting of the mesoderm?
  - Schizocoelom
  - Enterocoelom
  - Eucoelom
  - None of the above
- Leech is a blood sucking animal, nutritionally, therefore leech is
  - Herbivorous
  - Carnivorous
  - Sanguivorous
  - Omnivorous
- Ampulla in echinoderms contracts and force fluid into
  - Suckers
  - Tube feet
  - Radial canal
  - Stone canal
- Tracheoles penetrate the cell and they are associated with
  - Lysosome
  - Mitochondria
  - Golgi body
  - Spiracles
- Stylets are found in which type of mouth parts -
  - Lapping and Chewing
  - Only Sucking
  - Piercing and Sucking
  - Only Biting
- How many pairs of gills found in the Pleurobranch ?
  - 4 pairs
  - 6 pairs
  - 7 pairs
  - 5 pairs
- The Second reproductive caste of the termite colony also known as -
  - Branchypterous
  - Macropterous
  - Sterile males
  - None of these
- Life Span of a Queen bee is -
  - Approximately 5 years
  - 4 years
  - 6 years
  - 3years

11. The term mollusca is given by -
  - a. Hyman
  - b. Aristotle
  - c. Linnaeus
  - d. All of the above
12. Sepia is belongs to the Class-
  - a. Decapoda
  - b. Octopoda
  - c. Gastropoda
  - d. Aplacophora
13. Which gland is also known as hepatic ?
  - a. Buccal gland
  - b. Salivary gland
  - c. Digestive gland
  - d. None of these
14. Which of the following is exonephric?
  - a. Pharyngeal nephridia
  - b. Integumentary nephridia
  - c. Septal nephridia
  - d. Both a and b
15. Aristotle's lantern is found in which class of the phylum echinodermata
  - a. Asterozoa
  - b. Ophiurozoa
  - c. Echinozoa
  - d. Crinozoa
16. This structure helps the trocophore larva in feeding and locomotion
  - a. Prototroch
  - b. Larval nephridium
  - c. Mesoderm
  - d. Ganglion
17. Clitellum is present in the class
  - a. Polychaeta
  - b. Oligochaeta
  - c. Hirudinea
  - d. Archannelida
18. Peripatus shows a Connecting link between -
  - a. Annelida & Echinodermata
  - b. Annelida & Arthropoda
  - c. Annelida & Mollusca
  - d. Arthropoda and Echinodermata
19. The posterior sucker of *Hirudinaria* is formed by the union of
  - a. 1 segment
  - b. 3 segments
  - c. 5 segments
  - d. 7 segments
20. Peripatus Belongs to the Class -
  - a. Onychophora
  - b. Merostomata
  - c. Insecta
  - d. Crustacea

**(PART-B : Descriptive)**

Time : 2 hrs. 40 min.

Marks : 50

*[ Answer question no.1 & any four (4) from the rest ]*

1. Describe the general characteristics of *Hirudinaria granulosa*. 10
2. Write a short note on 5+5=10  
Trochophore larva  
Water vascular system of starfish
3. Describe briefly about the Social life of Honey bee. 10
4. Write a note on the respiratory system of *Periplanata americana* . 10
5. Define Torsion. Write a brief note on the general Characteristics 2+8=10  
of Mollusca.
6. Write about the digestive system of *Pila globosa* with suitable 10  
diagram .
7. Describe the male and female reproductive organs of 5+5=10  
earthworm with proper diagram.
8. Write a note on excretory system of earthworm with suitable 7+3=10  
diagram.

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