

REV-01
BSZ/26/31

B.Sc. ZOOLOGY
FIRST SEMESTER
BIOLOGY OF NON-CHORDATES
BSZ-101
[USE OMR SHEET FOR OBJECTIVE PART]

2023/12

SET
B

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

Choose the correct answer from the following:

1 × 20 = 20

1. This is the basis on which female *Ascaris* can be identified.
 - a. Two spicules found at the posterior end
 - b. Presence of post-anal and pre-anal papillae
 - c. Straight posterior end
 - d. Common cloacal aperture
2. All round worms differ from flat worms in having:
 - a. Longitudinal nerve cord
 - b. Pseudocoel
 - c. Segmented body
 - d. Metamorphosis in their life history
3. Presence of coelom and metamerism are the most important characters in:
 - a. Helminths
 - b. Arthropods
 - c. Annelids
 - d. Coelentrates
4. The body cavity of *Hirudo* is filled with:
 - a. Connective tissue
 - b. Parenchyma tissue
 - c. Botryoidal tissue
 - d. Coelomic fluid
5. The respiratory pigment present in insect is:
 - a. Haemoglobin
 - b. Haemoerythrin
 - c. Haemocyanin
 - d. None of these
6. Complete metamorphosis occurs in:
 - a. Silver fish
 - b. Locust
 - c. Bedbug
 - d. Mosquitoes
7. Which one of the following groups comes under social insects?
 - a. Cockroaches
 - b. Housefly
 - c. Termites
 - d. Mosquitoes
8. The study of Mollusca is generally known as:
 - a. Malacology
 - b. Concology
 - c. Helminthology
 - d. Herpetology
9. Shell of mollusca is secreted by:
 - a. Ectodermis
 - b. Mantle
 - c. Endodermis
 - d. All of these
10. Excretory products of Echinodermata is:
 - a. Urea
 - b. Urea and creatine
 - c. Ammonia
 - d. Uric acid

11. The one celled flagellate individuals forming a group is a part of..... theory proposed for metazoan origin.
 - a. Polyphyletic
 - b. Colonial
 - c. Syncytial
 - d. None of the above
12. The branch of biological science that studies the distinctive characteristics of species and how they are related to other species through time is called:
 - a. Taxonomy
 - b. Classification
 - c. Systematics
 - d. None of the above
13. What is the type of nutrition observed in Protozoa?
 - a. Holozoic
 - b. Holophytic
 - c. Saprozoic
 - d. All of them
14. The locomotor organelles pseudopodia or flagella or both is found in..... subphylum of Protozoa.
 - a. Sarcomastigophora
 - b. Cnidospora
 - c. Ciliophora
 - d. Sporozoa
15. The development of Porifera is indirect through a larval stage called:
 - a. Amphiblastula
 - b. Trocophore
 - c. Parenchymula
 - d. Planula
16. The bell margin in case of medusa in Cnidaria has short and slender:
 - a. Cilia
 - b. Flagella
 - c. Ribbons
 - d. Tentacles
17. The order Trachylina belongs toclass of Coelenterata.
 - a. Anthozoa
 - b. Hydrozoa
 - c. Scyphozoa
 - d. None of the above
18. Which among these is true for a helminth worm?
 - a. Definite head & tail
 - b. Definite circulatory system
 - c. Definite organ type of body
 - d. All of them
19. The disease diarrhoea is characterized by protozoan flagellate parasite:
 - a. *Entamoeba histolytica*
 - b. *Giardia intestinalis*
 - c. *Trypanosoma brucei*
 - d. *Plasmodium vivax*
20. Which is the most negative climate change phenomenon observed in coral reefs?
 - a. Coral weathering
 - b. Coral bleaching
 - c. Coral disappearing
 - d. None of the above

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

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| 1. Write short notes on: | 5+5=10 |
| a) Polymorphism in Cnidaria | |
| b) Pathogenicity of at least two Protozoans | |
| 2. Write the general features and classification of the phylum Cnidaria. | 10 |
| 3. Write the general features and classification of the phylum Protozoa. | 10 |
| 4. Write down at least ten general features of the Phylum Ctenophora. | 10 |
| 5. What is metamorphosis? What are the different types of metamorphosis found in Arthropoda? Give necessary diagrams. | 2+6+2=10 |
| 6. Write the general characteristic of the Phylum Nematoda. | 10 |
| 7. Explain the mechanism of torsion & coiling in Gastropoda with necessary diagram. | 8+2=10 |
| 8. Discuss the water-vascular system and its importance in Echinodermata. | 10 |

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