

B.SC. CHEMISTRY
SEMESTER- 1ST
ANIMAL BIODIVERSITY, ECOLOGY & BIOTECHNOLOGY
BSZ-711

Duration: 3 Hrs.

Marks: 70

Part : A (Objective) = 20

Part : B (Descriptive) = 50

[PART-B : Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

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

1. What are the sources of air pollution? Discuss the ways to control air pollution. 5+5=10
2. What are biogeochemical cycles? Discuss the nitrogen cycle in detail 4+6=10
3. What is a food chain? Describe the detritus food chain in detail 2+8=10
4. Describe the biotic and abiotic components of an ecosystem 10
5. Describe in brief the water canal system in Porifera. What are the unique characters of Porifera ? 8+2=10
6. What are polyp and medusa of Obelia colony? What are the general characters of coelenterates? 5+5=10
7. Describe in full the habitat and structure of *Paramecium* 10
8. Describe in details the water vascular system and its importance in Echinodermata 10

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[PART-A : Objective]

Choose the correct answer from the following :

1X20=20

1. Annelids are
 - a. Metamerically segmented
 - b. Non-metamerically segmented
 - c. Radially segmented
 - d. None of these
2. Which of the following is a class in phylum Annelida?
 - a. Polychaeta
 - b. Oligochaeta
 - c. Hirudinea
 - d. All of these
3. Prawn belongs to phylum
 - a. Arthropoda
 - b. Mollusca
 - c. Pisces
 - d. None of these
4. Arthropoda is derived from the word "Arthros" meaning
 - a. Jointed
 - b. Foot
 - c. Head
 - d. None of these
5. Which of the following are ecological pyramids?
 - a. Pyramid of number
 - b. Pyramid of biomass
 - c. Pyramid of energy
 - d. All of these
6. In a pond ecosystem, which of these are producers?
 - a. Small fish
 - b. Phytoplanktons
 - c. Green plants
 - d. Both b and c
7. The first necessity of an ecosystem is
 - a. Energy
 - b. Water
 - c. Oxygen
 - d. Nitrogen
8. Trophic level consists of
 - a. Plant only
 - b. Animal only
 - c. Microorganism only
 - d. All organisms linked with food chain
9. Decomposers are
 - a. Bacteria
 - b. Fungi
 - c. Both a and b
 - d. None of these
10. Flow of energy in an ecosystem is always
 - a. unidirectional
 - b. bidirectional
 - c. Both a and b
 - d. None of these
11. Which of the following is not a locomotory organelle in Protozoa.
 - a. Cilia
 - b. Flagella
 - c. Cetae
 - d. Pseudopodia
12. Slipper shaped animalcule is
 - a. Paramoecium
 - b. Euglena
 - c. Plasmodium
 - d. None
13. In Syconoid form of canal system, the incurrent canals communicate with the radial canals through
 - a. Apopyles
 - b. Prosopyles
 - c. Osculum
 - d. All of the above
14. Medusae of Obelia arise from
 - a. Hydrorhiza
 - b. Hydrocaulus
 - c. Polyp
 - d. Blastostyle

15. Flame cells of Platyhelminthes are associated with

- a. Respiration
- b. Excretion
- c. Circulation
- d. Digestion

16. Shell of Mollusc is secreted by

- a. Mantle
- b. Visceral mass
- c. Body wall
- d. None of the above

17. Which of the following is not a character of echinoderms

- a. Pentamerous radial symmetry
- b. Pseudocoelomate
- c. Exclusively marine
- d. Regeneration

18. In coelenterates, the reproductive zooids are called

- a. Hydranth
- b. Blastostyle
- c. Gastrozoid
- d. Nematocyst

19. Coelenterates are

- a. Acoelomate
- b. Radially symmetrical
- c. Diploblastic
- d. All of the above

20. Taenia solium belongs to the Class

- a. Turbellaria
- b. Cestoda
- c. Trematoda
- d. None of the above

UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



[PART (A) : OBJECTIVE]

Duration : 20 Minutes

Serial no. of the
main Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2017-18 Date :

Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

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Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature