

M.Sc. ZOOLOGY  
THIRD SEMESTER  
PARASITOLOGY, ECONOMIC ENTOMOLOGY &  
AQUATIC BIOLOGY  
MSZ-302

**SET  
D**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

**(Objective)**

Marks: 20

*Choose the correct answer from the following:*

1×20=20

- Vascular plant that floats freely in the water are called:  
a. Helophytes  
b. Amphiphytes  
c. Neuston  
d. Nymphaeids
- Among macroinvertebrates, dipterans are:  
a. Grazers  
b. Shredders  
c. Collectors  
d. Filterers
- In lake stratification, thermocline is also known as:  
a. Epilimnion  
b. Hypolimnion  
c. Metalimnion  
d. Stratilimnion
- Time of adult Sal borer, *Hoplocerambyx spinicornis* is:  
a. Autumn  
b. Winter  
c. Monsoon  
d. All of the above
- Destructive stage of teak defoliator, *Hyblaea puera* is:  
a. Adult stage  
b. Pupal stage  
c. Egg stage  
d. Larval stage
- Which of the following silk cocoon cannot be reeled?  
a. Mulberry  
b. Eri  
c. Muga  
d. Tasar
- Maximum amount of lac can be obtained from:  
a. Male lac insect  
b. Female lac insect  
c. Nymph  
d. Egg
- Prominent symptom of muscardine disease of silk worm is:  
a. Pepper like spots  
b. Polyhedra on blood  
c. Chalky white mummified body  
d. Bead like jointed excreta
- Rice grasshopper lays their eggs on:  
a. Paddy leaf  
b. Paddy seed  
c. Soil  
d. Paddy straw
- The oldest method of fish preservation is:  
a. Smoking  
b. Drying  
c. Salting  
d. Canning

11. Japanese encephalitis virus belongs to:
  - a. Flavivirus
  - b. RNA virus
  - c. Both a and b are correct
  - d. Only b is correct
12. Schizogony is a mechanism of:
  - a. Meiosis cell division
  - b. Multiple fission
  - c. Binary fission
  - d. All are correct
13. Infection that may be transmitted from Human to other animals are called as:
  - a. Zoonosis
  - b. Anthroponosis
  - c. Zooanthroponosis
  - d. Parazoonosis
14. Birth of mummified fetuses in swine is a clinical symptom of:
  - a. Ascaris infection
  - b. Dengue infection
  - c. Toxoplasma infection
  - d. Japanese encephalitis infection
15. Ex-Flagellation is seen in:
  - a. Sporozoit
  - b. Microgamates
  - c. Ookinate
  - d. Microcryptomerozoit
16. Host which makes the parasite available for transmission to another host is:
  - a. Reservoir host
  - b. Natural host
  - c. Accidental host
  - d. Transport host
17. Salinity of 50+ppt is found in:
  - a. Fresh water
  - b. Briny water
  - c. Saline water
  - d. Brackish water
18. Freshwater has salinity level of:
  - a. 3-5%
  - b. Less than 0.05%
  - c. 26-28%
  - d. 1-3%
19. Dissolved oxygen is formed in water by:
  - a. Diffusion
  - b. Aeration
  - c. As waste product from photosynthesis
  - d. All of the above
20. Typha species, an aquatic macrophyte is an:
  - a. Emergent macrophyte
  - b. Submerged macrophyte
  - c. Floating leaved macrophyte
  - 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 ]

1. Name four microbial disease of silkworm. Mention the causative agent and symptom of the disease caused by protozoa. 2+8=10
2. What are the common sources of parasitic infection? What do you mean by pathogenesis? Write about 5 types of pathogenic mechanism. 3+2+5=10
3. With the help of labelled diagram, write about lake stratification and its mixing pattern. 10
4. What is a plankton? Draw four types of plankton. Describe them according to their size, citing examples. 2+8=10
5. Give morphological classification of macrophytes. Describe their aquatic adaptation and functions. 5+5=10
6. Describe the life cycle of Plasmodium with proper diagram. Describe the prophylaxis and control measure of Malaria. 5+2<sup>1/2</sup>+2<sup>1/2</sup>=10
7. Describe the life cycle and damage done by any one of sugar cane or bamboo pests. 6+4=10
8. What is composite fish culture? Describe briefly about different types of composite fish culture techniques. Describe about the benefits of composite fish culture technique. 2+6+2=10

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