

M.Sc. ZOOLOGY
Third Semester
PARASITOLOGY, ECONOMIC ENTOMOLOGY
& AQUATIC BIOLOGY
(MSZ - 302)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any *four* from *Question no. 2 to 8*
Question no. 1 is compulsory.

1. Write a note on silkworm diseases and their preventive measures. (10)
2. Write short notes- (2.5×4=10)
 - (a) Importance of DO
 - (b) Importance of pH
 - (c) Stenohaline
 - (d) Euryhaline
3. Describe the Erythrocytic stage of *Plasmodium vivex* with suitable diagrams. (10)
4. Write a note on *any two* of the following: (5×2=10)
 - (a) Describe briefly on the possible risk factors that might arise after the introduction of transgenic fishes to the environment.
 - (b) Discuss briefly on the needs of the intervention of cryopreservation technology in modern aquaculture practices.
 - (c) Discuss briefly on the incidence of various fish diseases prevalent in India.
5. What is composite fish culture? What is the principle of composite fish culture? Enumerate some of the objectives of composite fish culture and highlight some of the salient feature of composite fish culture in India. (2+2+6=10)

6. Write in brief about advancement of pearl culture in India and add a note on specific characteristics of natural and cultured pearls. (10)
7. What is fish preservation? Mention two methods of salting in fishes and add a note on 'Canning' process used in fish preservation. (10)
8. Highlight some of the salient features of freshwater prawn farming in India. (10)

Or

Write short notes on:

- (a) Freshwater Ecosystem
- (b) Plankton

10. Ichthyophthiriasis is also known as
 a) Gas bubble disease b) White spot disease
 c) Both (a) and (b) d) None of the above
11. Edwardsiellosis is caused due to
 a) Edwardnii b) Edwardii c) Edwardsiellatarda
12. Whirling disease in *Cirrhinus mrigala* has been attributed to
 a) Protozoan parasite *Myxosomacerebralis*. b) *Aeromonashydrophila*
 c) *Viral infection* d) *None of the above*
13. Heavy mortality due to Argulosis or fish lice infestation has been reported in Indian major carps. This is caused due to
 a) *Argulus* b) *Lice*
 c) *Gyrodactylus* d) *All of the above*
14. A host, in which larval stage of the parasite remains viable without further development is called
 a) Accidental host b) Paratenic host
 c) Definitive host d) Intermediate host
15. Undulating membrane found in which Hemoflagellates-
 a) Amastigote and Promastigote b) Promastigote and Epimastigote
 c) Epimastigote and Trypomastigote d) Trypomastigote and Amastigote
16. The resting forms of sporozoites in malaria are called
 a) Prepatent period b) Postpatent period
 c) Hypnozoites d) Latetrophozoites
17. The receptor for merozoites in RBC is
 a) Glycophorin b) Haemoglobin
 c) Glycogen d) RBC membrane
18. In response to the DENV the white blood cells respond by producing a number of signaling proteins, such as
 a) Cytokines and Interferons b) Serine and Threonine
 c) Histidine and Glutamine d) Alanine and Leucine
19. The first live gene was started in 1962 at.....
 a) Fish Culture Research Institute, Hungary.
 b) Fish Culture Research Institute, China.
 c) National Bureau of Fish Genetic Resources, India.
 d) Aquaculture Research Institute, Japan.
20. Which of the following water can be directly used for aquarium?
 a) Tap water b) Rain water
 c) Pond water d) Tube well water
