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.

Write a note on silkworm diseases and their preventive measures.
 Write short notes-

(10) $(2.5 \times 4 = 10)$

- (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:

 $(5 \times 2 = 10)$

- (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

Marks - 20

 $1 \times 20 = 20$

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		(1132 - 302)		
Du	ration: 20 minutes	(PART A - Objective Type)		
I. Choose the correct answer:				
1.	Cockchafer, <i>Lachosterna s</i> , a) Sapling root borer c) Seed feeder	The same states		
2.	Nosema bombysisin silkwo a) Flacherie c) Grasserie	by Muscardine d) Pebrine		
3.	Immature harvesting of lac a) Phunki lac c) Seed lac	is called b) Ari lac d) Shellac		
4.	Silk gland of silkworm is n a) Labial gland c) Poison gland	nodification of b) Mandibular gland d) Thoracic gland		
5.	Stifling is a) Spunning of cocoon c) Reeling of cocoon	b) Killing of pupa d) None of the above		
6.	In the polar region, the inte a) Low c) Constant	nsity of temperature is – b) High d) None		
7.	Dead Zone is an area with la) Temperature c) Oxygen	ittle or no – b) Light d) None		
8.	Freshwater pearls form in v a) Unionidae c) Lamillidae	rarious species of freshwater mussels of family b) Pteridae d)Percidae		
0	One amongst the following	is the largest marine water prawn		

b) Macrobrachiummalcolmsonii

d) Metapenaeusdobsoni

a) Macrobrachium rosenbergii

c) Penaeusmonodon

11. Edwardsiellosis is caused due to a) Edwardii b) Edwardii c) Edwardsiellatarda 12. Whirling disease in Cirrhinusmrigala has been attributed to a) Protozoan parasite Myxosomacerebralis. 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 c) Epimastigote and Trypomastigote d) Trypomastigote and Epimastigote c) Epimastigote and Trypomastigote d) Trypomastigote and Amasigote 16. The resting forms of spoozoites 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) Gas bubble disease b) White spot disease c) Both (a) and (b) d) None of the above			
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