

2023

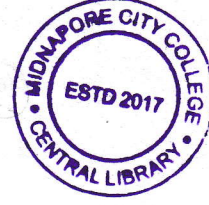
**BFSC 5th Semester Examination**

**( Microbial and Parasitic Diseases of Fish  
and Shellfish )**

PAPER — BFSC-501

Full Marks : 50

Time : 2 hours



*Indrajit*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers  
in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

1. Answer any **ten** from the following questions :  
2×10=20

- ✓(a) Write down the causative agents of dropsy and EUS.
- (b) Write on the two control measures taken during cotton wool diseases in fish.
- (c) Explain the importance of disease surveillance in aquaculture.

/763

( Turn Over )

( 2 )

- (d) What is the importance of quarantine in aquaculture?
- (e) Briefly outline two key health management strategies employed in aquaculture to promote disease prevention.
- (f) Write down the function of immunostimulants in aquaculture.
- (g) State two advantages of using bioremediation techniques in the treatment of polluted water bodies.
- (h) Write the role of probiotics in health management of fish.
- (i) Differentiate between Good Management Practices (GMP) and Best Management Practices (BMP) in aquaculture.
- (j) Define SPF and SPR in aquaculture.
- (k) Enumerate two biosecurity measures that focus on minimizing the risk of disease transmission in aquaculture.
- (l) Define WSSV in shrimp and mention one preventive measure against this disease.
- (m) What is Sanitary and Phytosanitary (SPS) Agreement?

/1763

(Continued)



( 3 )

- (n) Name two environmental management practices that contribute to disease control in aquaculture.
- (o) Provide two examples of zoonotic diseases that can affect both aquatic animals in aquaculture and humans.
2. Answer any six from the following questions :  
5×6=30
- (a) Write a note on fish immunostimulants. 5
- (b) Name one infectious disease in shrimp with causative agents, symptoms and control measures. 1+1+1+2=5
- (c) State the damages caused by *Argulus* in carps and mention some phytochemical measures. 2+3=5
- (d) State the life cycle of *Lernaea* sp. with suitable diagram and mention some remedial measures against the parasites. 3+2=5
- (e) Write a short note on IHNV. 5
- (f) How does the presence of biofilm contribute to the overall health of aquatic ecosystems and what role does it play in supporting various organisms? 5

/1763

(Turn Over)

( 4 )

- (g) In the context of aquaculture, what are the key benefits of biofloc systems in terms of water quality management and the overall health of cultured aquatic species? 5
- (h) What role does periphyton play in maintaining ecological balance in freshwater environments and how does it contribute to the health of aquatic organisms? 2+3=5
- (i) Define probiotics. What are the potential benefits of using probiotics in aquaculture? 2+3=5
- (j) Write the ideal characteristics of vaccines used in world aquaculture practice. 5

