

2023

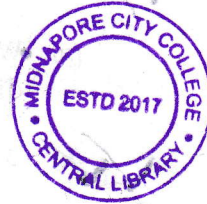
BFSC 4th Semester Examination

Fish and Shellfish Pathology

PAPER — BFSC-402

Full Marks : 50

Time : 2 hours



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) What is pathogenicity?

(b) Why is the study of fish pathology important for aquaculture?

(c) How does 'disease triangle' relate to host, pathogen and environment interactions?



(2)

- (d) Write the ideal fresh water parameters for healthy fish management.
- (e) What are stressors? Give examples.
- (f) How does a fish exhibit an inflammatory response to tissue injury?
- (g) Write the symptoms of stress due to low dissolved oxygen (DO₂) in Carp fishes.
- (h) What is extracellular matrix remodelling?
- (i) Write the role of lime in disease management.
- (j) What are the common symptoms of Epizootic ulcerative syndrome?
- (k) Write the name of causative agents and symptoms responsible for fin-rot disease.
- (l) Name two gram +ve bacterial fish diseases.
- (m) How does cold stress affect the fish health?
- (n) Write a short note on vitamin-A deficiency syndrome.
- (o) Write the diseases of fish due to nutritional deficiencies.

/556 (Continued)



(3)

2. Answer any six from the following questions : 6x5=30

- (a) Define defence mechanism of fish against infectious diseases. 5
- (b) What do you mean by inoculum? What are different types of inoculum? 2+3=5
- (c) What are the clinical signs and treatment of *Saprolegnia* infection in fish? 5
- (d) Write the symptoms and control measures of WSSV disease of shrimps. 5
- (e) What is metaplasia? Write down the mechanism of metaplasia with example. 2+3=5
- (f) Describe cellular responses of fishes due to injuries. 5
- (g) Write down the difference between endotoxins and exotoxins. 5
- (h) How do we know that a given pathogen causes a specific disease? 5
- (i) Give an account of ectoparasitic disease of fish. 5
- (j) Write notes on viral diseases of shellfish. 5

★★★

B.F.Sc./4th Sem/BFSC-402/23 BL23(023)—60

