

2022

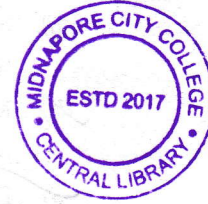
B.F.Sc. 3rd Semester Examination

Fish Immunology

PAPER — BFSC-301

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) Write down the principle of ELISA technique. ✓
- (b) What is serotyping?
- (c) What are innate immunity and adaptive immunity? ✓
- (d) Write the defence mechanism in prawn.
- (e) What are antigen and immunogen?



(2)

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- (f) Define haptens. 2
- (g) What is the role of IgA? 2
- (h) Write down the external defence mechanism in fish. 2
- (i) What do you mean by cell mediated immune system? 2
- (j) State the role of monocytes in fish immune system. 2
- (k) Mention the names of different granulocytes present in fish blood. 2
- (l) Define non-specific cytotoxic cells. 2
- (m) Mention the name of two primary lymphoid organs in fish. 2
- (n) What is epitope and paratope? 2
- (o) Define recombinant vector vaccines. 2

2. Answer any six from the following questions :

- (a) Write down the applications of ELISA technique. 5
- (b) Write a note on radio immunoassay. 5
- (c) State the mode of transmission of disease producing organism. 5
- (d) Write down the structure of any antibody. 5
- (e) What do you mean by humoral antibody system? 5

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(Continued)

(3)

- (f) What do you mean by MHC? State its function. 2+3=5
- (g) Write on antigen-antibody interaction in fish. 5
- (h) Write on cell mediated immunity in fish. 2+3=5
- (i) What are the major advantages and disadvantages of injection process used in fish vaccination? 2½+2½=5
- (j) Classify different types of stressors. 5

