

2025

M.Sc. 3rd Semester Examination
FISHERIES SCIENCE

Paper : FSC - 303

(Fish Genetics and Biotechnology)

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *two* questions : 2×2=4
 - (a) What is the difference between diploid and polyploid organisms?
 - (b) Name the steroids used for sex reversal in fish.
 - (c) What do you mean by Intellectual Property Right (IPR)?
 - (d) Explain the importance of selective breeding in fish.
2. Answer any *two* questions : 4×2=8
 - (a) Describe hybridization in fishes with its pros and cons.
 - (b) Discuss the applications of biotechnology in aquaculture and fisheries management.

P.T.O.

(2)

- (c) Explain the production of monosex fish populations and super males.
- (d) Briefly describe the structure of Eukaryotic chromosome with suitable diagram.

3. Answer any *one* question : 8×1=8

- (a) What do you mean by genome manipulation?
Briefly describe induced Gynogenesis in fish with suitable examples. 2+6
- (b) Briefly explain the procedure for the production of sterile fish with a note to its utility in aquaculture production. 6+2

Internal Assessment : 5 marks
