

M.Sc. 3rd Semester Examination, 2018

FISHERIES SCIENCE

PAPER — FSC-302

Full Marks : 40

Time : 2 hours

Answer all questions

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

UNIT — I

(Genetic Engineering and Biotechniques)

1. Answer any two of the followings : 2 × 2

(a) Taq polymerase

(b) Principle of IEF.

(Turn Over)

(2)

(c) Z-DNA

(d) Cross-linker in gel-electrophoresis.

2. Answer any *two* of the following questions : 4×2

(a) Discuss the relative centrifugal force in centrifugation technique.

(b) Briefly explain the working of paper chromatography.

(c) Write a note on genetic code.

(d) What is recombinant DNA ? Write a short note on DNA fingerprinting.

3. Answer any *one* of the following questions : 8×1

(a) (i) State the principle of Electrophoresis.

(ii) Describe SDS-PAGE and its utility.
(2 + (5 + 1))

(b) (i) Write a note on Watson-Crick model of DNA.

(ii) Briefly elaborate the steps of PCR. 4 + 4

UNIT – II

(Fisheries Technology and Harbour Engineering)

4. Answer any *two* from the followings : 2×2
- (a) Compare active fishing gear with passive fishing gear.
 - (b) Distinguish between natural fibres and artificial fibres.
 - (c) Enlist the names of the fishing crafts used in Tamilnadu Coast.
 - (d) State the functions of SONAR.
5. Answer any *two* from the following : 4×2
- (a) Briefly explain different factors influencing the design of fishing gears.
 - (b) Narrate the concept and impact of mesh size regulation.
 - (c) Describe the traditional fishing gears used in Coastal West Bengal.

(4)

(d) Briefly discuss different types of fishing gear accessories.

6. Answer any *one* from the following : 8×1

(a) (i) What is fishing harbour ?

(ii) Briefly describe the preliminary investigation for constructions of fishing harbour.

(iii) State the facilities required for fishing harbour.

$1 + 3 + 4$

(b) Short note :

$4 + 4$

(i) Mechanism of trawling

(ii) Beach seine and purse seine.