

M.Sc. 3rd Semester Examination, 2019

FISHERIES SCIENCE

PAPER—FSC-302

Full Marks : 40

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

UNIT-I

[Marks : 20]

(Genetic Engineering and Biotechniques)

1. Answer any *two* of the following : 2 × 2

(a) Write the principles of chromatography.

- (b) What are palindromic sequences ?
- (c) Write a short note on DNA finger printing.
- (d) What do you mean by genomic library ?

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

- (a) Briefly describe the principle and procedure of iso-electric focussing. 4
- (b) Briefly discuss recombinant DNA technology. Add a note on DNA therapy. 2 + 2
- (c) Describe the features of a right handed double-helix of DNA. 4
- (d) Write a note on immunoblotting techniques and their utility. 4

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

- (a) (i) Briefly describe different step of polymerase chain reaction with suitable diagram.
- (ii) Explain the steps of differential centrifugation of cell homogenate. 5 + 3

- (b) (i) What is the principle of ELISA ?
- (ii) Discuss the types and procedure of ELISA technique. 2 + (2 + 4)

UNIT-II

[Marks : 20]

(Fisheries Technology and Harbour Engineering)

4. Answer any *two* questions : 2 × 2
- (a) Write the name of four inland fishing gears used in West Bengal.
- (b) Enlist name of fishing crafts used in Gujrat Coast.
- (c) What are the different synthetic fibres for net making ?
- (d) Briefly explain on the closed fishing season in Coastal West Bengal.

5. Answer any *two* questions : 4 × 2

(a) Write a brief note on the life saving appliances used in fishing vessels.

(b) Briefly explain different factors influencing the design of fishing craft.

(c) Briefly describe the mechanism of trawling TED.

(d) Give an account on gear selection and its impact on aquatic ecosystem.

6. Answer any *one* questions : 8 × 1

(a) (i) What are the fishing gear accessories ?

(ii) Write a brief note on any two fishing gear accessories.

(iii) Add a note on Echo-sounder. 2 + 4 + 2

(b) Short notes on : 2 × 4

(i) Fishing harbour

(ii) GPS

(iii) Ghost fishing

(iv) By-catch.

