2019

M.Sc.

4th Semester Examination FISHERIES SCIENCE

Paper - FSC 402

Full Marks: 40

Time: 2 Hours

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

Unit - I

(Fisheries Statistics and Research Methodology)

- Answer briefly any two questions from the following:
 2×2=4
 - (a) Define frequency and cumulative frequency.
 - (b) Show that if \overline{x} is the arithmetic mean of the quantities $x_1, x_2 ..., x_n$ then $\sum_{i=1}^{n} (x_i \overline{x}) = 0$.

- (c) State the importance of review of literature in research.
- (d) What is coefficient of variation?
- 2. Answer any two questions from the following:

 $2 \times 4 = 8$

- (a) Discuss about different bar diagram and their uses.
- (b) Find out the correlation co-efficient from the following data:

x	65	66	67	67	68	69	70	72
у	67	68	65	68	72	72	69	71

- (c) State about different classification of research.
- (d) Write down quantitative and qualitative research.
- 3. Answer any one question from the following:

 $1 \times 8 = 8$

- (a) (i) Define research.
 - (ii) How to write the references for your dissertation work?
 - (iii) Calculate the SD for the following data.

x	5	15	25	35	45	55	65	75
у	3	7	9	23	15	8	6	4

- (b) (i) Give an idea about Geometric mean.
 - (ii) Find out the missing frequencies of the following data, given that AM is 67.45 gram.

Weight of fish (g)	60-62	63-65	66-68	69-71	72-74	Total
No. of fish	5	18	f_3	f_4	8	100

(iii) State about different steps of research process. 2+4+2

Unit - II

(Fisheries Legislation, Computer and Bioinformatics)

- 4. Answer briefly any *two* questions from the following: $2 \times 2 = 4$
 - (a) What is the job of control unit and ALU?
 - (b) List down different types of printers.
 - (c) Write a short note on the Maritime Zones of India Act 1981.
 - (d) Write a short note on EEZ of India.

- 5. Answer any two of the following:
- $2 \times 4 = 8$
- (a) Briefly discuss the Code of Conduct for Responsible Fisheries (CCRF).
- (b) Write a note of Marine Fisheries resources of India.
- (c) State the features of first and last generation of computers.
- (d) Briefly explain the characteristics of Computer.
- 6. Answer any *one* of the following: $1 \times 8 = 8$
 - (a) (i) Give an account of the Marine Fishing Regulation Act.
 - (ii) What are the regulations for the territorial water imposed by the Govt. of West Bengal under this Act?
 - (iii) Write a note on closed fishing season imposed in Marine Water of India. 3+3+2
 - (b) (i) Briefly discuss on Coastal Aquaculture Authority Act 2005.
 - (ii) Draw a general block diagram of computer and discuss its components.4+4