

**2017****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.**Illustrate the answers wherever necessary.***Unit—I***(Fisheries Statistics and Research Methodology)*

1. Answer any *two* questions from the following : 2×2
- (a) What are specific features expected from a good researcher ?
  - (b) How 'population' and 'sample' are defined from statistical point of view ?
  - (c) Discuss about null hypothesis.
  - (d) Define Geometric mean with an example.

*(Turn Over)*

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

(a) Discuss about different types of bar-diagram with examples.

(b) Compute the standard deviation from the following frequency distribution pattern :

x	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
y	5	12	15	20	18	10	6	4

(c) Briefly narrate the scatter diagram.

(d) Give an idea about Chi-square test with suitable example.

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

(a) (i) What is your understanding about 'research'?

(ii) Classify different types of research. Mention the steps of research processes generally followed.

(iii) Add a note on importance of Statistics for survey-based research data validation.

$$1\frac{1}{2} + 2 + 2 + 2\frac{1}{2}$$

- (b) (i) Define relative and cumulative frequency distribution.
- (ii) Find out the missing frequencies in the following frequency distribution, when AM = 11.09 and total frequency = 60 :

Class limit	9.3-9.7	9.8-10.2	10.3-10.7	10.8-11.2	11.3-11.7
Frequency	2	5	$f_3$	$f_4$	14
Class limit	11.8-12.2	12.3-12.7	12.8-13.2		
Frequency	6	3	1		

3+5

### Unit—II

(Fisheries Legislation, Computer Application in Fisheries)

4. Answer any *two* questions from the following : 2×2
- (a) Write a short note on the Maritime Zones of India Act, 1981.
- (b) State the name of various functional units of computer hardware.
- (c) Write a short note on 'Exclusive Economic Zone' of India.
- (d) Write down the main logical units of CPU.

5. Answer any *two* questions from the following : 2×4
- (a) Briefly discuss the code of conduct for Responsible Fisheries.
- (b) Write a note on MPEDA Act, 1972.
- (c) What is operating system of a computer ? Write different functions of operating system. 2+2
- (d) Write a note on different storage device used in computer.
- 
6. Answer any *one* question of the following : 1×8
- (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 ?  
 (iii) Write a note on closed fishing season in Indian Marine Water. 3+3+2
- (b) Answer *all* of the following questions :
- (i) What is application software ? Give example.
- (ii) Write short note on LAN.
- (iii) Classify operating system depending upon the type of user interface.
- (iv) Briefly discuss on Coastal Aquaculture Authority Act, 2005. 2+2+2+2
-