

**M.Sc.**

**2016**

**4th Semester Examination**

**FISHERIES SCIENCE**

**PAPER—FSC-402**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand 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) Mention advantages and disadvantages of arithmetic mean.
  - (b) What is meant by primary and secondary data? Mention with example.

*(Turn Over)*

- (c) What do you mean by 'Mode'— Give examples ?  
 (d) Define 'Standard deviation' with example.

2. Answer any *two* questions from the following :  $2 \times 4$

- (a) Prove that  $AM \geq GM \geq HM$   
 (b) Find out the median from the following frequency distribution.

Class boundaries	15-25	25-35	35-45	45-55	55-65	65-75
Frequency	4	11	19	14	0	2

- (c) Explain different Bar diagram with example.  
 (d) Find out the Correlation Co-efficient from the following data collected from fish sample.

Length (CM)	65	63	67	64	68	62	70	66
Weight (g)	68	66	68	65	69	66	68	65

3. Answer any *one* questions of the following :  $1 \times 8$

- (a) (i) If  $y_i = \frac{x_i - c}{d}$  ( $i = 1, 2, \dots, n$ ) where 'c' and 'd' are

constants prove that  $\bar{x} = c + d\bar{y}$

- (ii) Find out the missing frequencies of the following

data, given that AM = 67.45

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

- (b) (i) State the meaning of research.
- (ii) Mention the essential characteristics of a researcher.
- (iii) Classify different important aspects of research.
- (iv) Prepare an experimental design with respect to aquaculture research.  $1\frac{1}{2}+2+2+2\frac{1}{2}$

### Unit—II

#### (Fisheries Legislation, Computer Application in Fisheries)

4. Answer any two questions from the following :  $2 \times 2$
- (a) Mention different central fisheries Legislation of India.
- (b) Write a note on Marine fisheries resources of India.
- (c) Enlist different storage device used in computer.
- (d) Name the components of a data Communication system.

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

- (a) Write a note on the Merchant Shipping Act, 1958.
- (b) Highlight the Indian Fisheries Act, 1897.
- (c) What do you mean by software? Explain with examples.
- (d) Discuss different categories of Network.

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

(a) Write short note on the following :

- (i) Marine Fishing Regulation Act.
- (ii) Major objective of MPEDA.
- (iii) Charecteristics of RAM.
- (iv) Bit and Byte. 2+2+2+2

(b) (i) Discuss about the model bill on Inland Fisheries and Aquaculture, 2005.

(ii) Briefly write on different generations of computer.

4+4