

1/EH-36 (i) (Syllabus-2015)

2022

(November)

FISHERY SCIENCE

(Elective/Honours)

FIRST PAPER (Paper-1A)

(Fish Biology and Taxonomy)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

**Answer Question No. 1 which is compulsory
and any four from the rest**

- 1. Write short notes on any three of the following :** **4×3=12**
- (a) Non-swimming locomotion**
 - (b) Significance of colouration in fish**
 - (c) Functions of sense of smell in fish**
 - (d) Types of scales**
 - (e) Characteristic of family *Cyprinidae* with example**

(2)

2. Give a detailed account on the process of fish evolution with suitable examples. 11
3. Describe in detail the diversity of body forms in fish and discuss compensation factors. 7+4=11
4. Describe the following : 5+6=11
- (a) Structure and function of gills
- (b) Accessory respiratory organs in fish
5. Describe the lateral-line system, and the structure and function of the neuromast organ in fish. 4+5+2=11
6. Describe the following : 5+6=11
- (a) Structure and origin of electric organs in fish
- (b) Mechanism of electric discharge in fish
7. Discuss the following : 6+5=11
- (a) Structure and functions of photophores
- (b) Significance of poison glands in fish

(3)

8. Write short notes on any *two* of the following : $5\frac{1}{2}\times 2=11$
- (a) Speciation in fish
- (b) Basic concepts of skeletal system in fish
- (c) Sense of taste in fish
