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**5203-B**

**M. Sc. (Final) Examination, 2016**

**ZOOLOGY**

Paper-III

**(Aquaculture, Fisheries and Ecotoxicology)**

Time : Three Hours

Maximum Marks : 100

**PART - A ( खण्ड-अ )** [Marks : 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर पचास शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

**PART - B ( खण्ड-ब )** [Marks : 50]

Answer *five* questions (250 words each).

Selecting *one* from each unit. All questions carry equal marks.

प्रत्येक इकाई से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

**PART - C ( खण्ड-स )** [Marks : 30]

Answer any *two* questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

5203-B/470

P.T.O.

## **PART - A**

### **UNIT - I**

1. (a) Define fish and fisheries.
- (b) Give examples of four commercially important fin fishes.

### **UNIT - II**

- (c) Differentiate between culture and capture fisheries.
- (d) Give examples of four weed fishes.

### **UNIT - III**

(e) Define cage culture.

(f) Define hybridization.

### **UNIT - IV**

(g) Write names of fishes and prawns found in pokkali fields.

(h) Define micronutrients.

### **UNIT - V**

(i) Describe fluoride toxicity.

- (j) Define bioaccumulation.

## **PART - B**

### **UNIT - I**

2. Describe biology and culture of common carp.
3. Write brief account of economic molluscs.

### **UNIT - II**

4. Write a note on fertilization of fish pond.
5. Write a note on cryopreservation of gametes and embryo.

### **UNIT - III**

6. Describe advantages and disadvantages of fish hybridization.
7. Define monosex culture and write down its advantages.

### **UNIT - IV**

8. Write a note on live fish transport.
9. Describe composite fish culture.

### **UNIT - V**

10. Explain biomagnification of toxins with the help of suitable examples.

11. What are heavy metals ? Why these are toxic ? Write their mode of action with target organs.

**PART - C**

**UNIT - I**

12. Describe scope and importance of aquaculture in India.

**UNIT - II**

13. Describe various types of freshwater weeds found in inland waters of India and describe the methods of their eradication.



### **UNIT - III**

- 14.** Write an essay on applications of biotechnology and genetic engineering in fisheries.

### **UNIT - IV**

- 15.** Give an account of fishing crafts and gears of India.

### **UNIT - V**

- 16.** Describe various types of water pollutants and their effects on fishes and other aquatic organisms.