

**6/H-36 (viii) (Syllabus-2015)**

**2 0 2 3**

**( May/June )**

**FISHERY SCIENCE**

**( Honours )**

**Paper : 8A**

**( Fish Breeding and Hatchery Management )**

**Marks : 56**

**Time : 3 hours**

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

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

- 1. Write short notes on any three of the following : 4×3=12**
- (a) Types of reproduction in fish**
  - (b) Significance of migration**
  - (c) Criteria of selection of brood fishes for induced breeding**
  - (d) Sexual dimorphism in fish**
  - (e) Procurement of air-breathing fish seeds from natural sources**

2. (a) Define courtship behaviour in fish. 4  
 (b) Discuss parental care in fishes giving examples. 7
3. (a) Define the breeding cycles in fish. 4  
 (b) Describe the different stages in the maturation of gonads in fish. 7
4. (a) What do you understand by induced breeding in fish? 4  
 (b) Describe the factors affecting induced breeding of fish. 7
5. (a) Describe the different types of migration pattern in fish. 7  
 (b) Mention the causes of migration. 4
6. Describe the structure and function of the male and female reproductive organs in fish. 11
7. (a) Mention the different types of carp hatchery in India. 4  
 (b) Describe the design of a modern carp eco-hatchery. 7

8. Write short notes on any *two* of the following :  $5\frac{1}{2}\times 2=11$
- (a) Spawning behaviour in fish  
 (b) Post-larval development in carp  
 (c) Broodstock nutrition with reference to carps

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