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(July)

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) Parental care of fish

(b) Maturation of gonads

(c) Procurement of carp seed from natural sources

(d) Factors affecting induced breeding

(e) Gonadosomatic index

2. Describe the sexual dimorphism, courtship and spawning behaviour of fishes. 4+3+4=11

3. Describe the process of spermatogenesis and oogenesis of fish. Write a note on embryonic development of fish with suitable diagram. 3+3+5=11

4. Describe the criteria for selection of brood fishes. Discuss the management procedure of brood fishes. 4+7=11

5. Describe the design and construction of eco-hatchery. Discuss various physical and chemical factors affecting induced breeding of carps. 5+3+3=11

6. Describe wet and dry bundh methods for induced breeding of carps. 5½+5½=11

7. Describe the merits and demerits of collection of fish seed from natural sources in terms of quality and quantity. 11

(3)

8. Write short notes on any *two* of the following : $5\frac{1}{2} \times 2 = 11$

(a) Anadromous migration

(b) Hypophysation

(c) Synthetic hormone for induced breeding

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