

2018

M.Sc. 1st Seme. Examination

FISHERIES SCIENCE

PAPER—FSC-103

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

Anatomy and Physiology of Fin Fish

[Marks : 20]

1. Answer any *two* questions : 2×2

- (a) Define accessory respiratory organ with example.
- (b) Distinguish *between the intestine* of herbivorous and carnivorous fishes.

(Turn Over)

- (c) Point out the **different** components found in fish blood serum.
- (d) State the **functions** of fertilization membrane in fish.

2. Answer any *two* questions : 2×4

- (a) Briefly narrate the **process** of spermatogenesis in fishes.
- (b) Describe the **process** of fish blood formation.
- (c) Give an account on the **absorption process** of food materials through the **intestine** of fishes.
- (d) Briefly narrate the **lymphatic system** of fishes.

3. Answer any *one* question : 1×8

- (a) Briefly describe the **structure and functions** of pituitary gland of teleost fishes. Add a note on corpuscles of Stannius. (3+2)+3
- (b) Short notes :
- (i) Gill **structure** of bony fishes.
- (ii) **Functions** of fish blood. 4+4

Unit-II***Anatomy and Physiology of Shell Fish*****[Marks : 20]**

4. Answer any *two* questions : 2×2
- (a) Briefly explain the mechanism of respiration of Cuttle fish.
 - (b) Distinguish between blood of fin-fish and shell-fish.
 - (c) State the food and feeding habit of *Macrobrachium rosenbergii*.
 - (d) What are the functions of hepatopancreas ?
5. Answer any *two* questions : 2×4
- (a) Describe the female reproductive system of freshwater prawn.
 - (b) Briefly narrate the circulation pattern of freshwater Mussel.
 - (c) Give an account on the digestion and absorption process of any one shell fishes.
 - (d) Write a note on circulatory system of *Sepia* Sp.

6. Answer any *one* question : 1×8
- (a) What is fertilization ? Discuss the organogenesis process of any one shell fishes with diagram. 2+(4+2)
- (b) Short note :
- (i) Digestive system of prawn.
- (ii) Digestive system of freshwater mussel. 4+4
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