

M.Sc. (Part—II) Semester—III (CBCS) Examination

ZOOLOGY

Fisheries—II (Fish Physiology)

Paper—XII (Elcctive Paper)

Time : Three Hours]

[Maximum Marks : 80

Note :—(1) All questions are compulsory.

(2) All questions carry equal marks.

(3) Draw well labelled diagram wherever necessary.

1. Describe the following :

- (a) Water flow across the gills
- (b) Scales
- (c) Transport of respiratory gases
- (d) Chromatophores

OR

- (e) Mucogenic epidermis
- (f) Gills
- (g) Physiological adaptation in air breathing fishes
- (h) Respiratory pump. 16

2. Describe digestive fluids and enzymes. Digestion and absorption of protein, fat, carbohydrates.

OR

Describe general organization, structure and function of swim bladder in fishes. 16

3. Explain the following :

- (i) Heart in Fish
- (j) Cardiac output
- (k) Regulation of cardiac activity
- (l) Composition of blood.

OR

- (m) Hemodynamics
- (n) Blood pressure
- (o) Circulation time
- (p) Aortic arches in fishes. 16

4. Describe Electro receptors in fishes.

OR

Describe structure of eyes and its photoreceptive functions. 16

5. Give an account on :

- (q) Euryhaline teleosts
- (r) Migratory teleosts
- (s) Glomerular kidneys in fishes
- (t) Excretion of Nitrogenous Wastes in fishes.

OR

- (u) Stenohaline teleosts
- (v) Urea cycle
- (w) Agglomerular kidneys in fishes
- (x) Water and ion balance.

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