

[4]

SECTION 'C'

4 × 10 = 40

Long Answer questions (Word limit 400-450 words.)

UNIT-I

- Q. 1.** Give an account of different types of caudal fin with their modifications.

OR

Describe the appendicular skeleton of fish.

UNIT-II

- Q. 2.** Describe the various accessory respiratory organs in fishes.

OR

Give a comparative account of the structure of kidney of fresh water and marine teleosts fishes.

UNIT-III

- Q. 3.** Describe various events in the development of teleost fish upto gastrulation.

OR

Give an account on sound producing organs and its significance in fishes.

UNIT-IV

- Q. 4.** Write an essay on colour in fishes and its significance.

OR

Describe adaptations in Hill stream fishes.

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[1]

ROLL NO.....

ZOO. 403/21

IV SEMESTER EXAMINATION, 2021

M.Sc. (ZOOLOGY)

PAPER-III

ICHTHYOLOGY

TIME: 3 HOURS

MAX.- 80

MIN.- 16

Note: The question paper consists of three sections A, B & C. All questions are compulsory.

Section A- Attempt all MCQ questions

Section B- Attempt one question from each unit.

Section C- Attempt one question from each unit.

SECTION 'A'

2 × 8 = 16

Multiple Choice Questions

1. The circuli of the cycloid scales are used to determine the -
(a) Nutritional value of fish (b) Sex of fish
(c) Age of fish (d) Viability of fish
2. The oesophageal opening into the cardiac stomach is guarded by-
(a) Blind Sac (b) Sphincter valve
(c) Scroll valve (d) Oesophageal valve
3. What is bony protective gill cover of a fish -
(a) Shield (b) Magma
(c) Operculum (d) Scales

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4. Type of kidney in Chondrichthyes is -
(a) Mesonephric (b) Opisthonephric
(c) Metanephric (d) Pronephric
5. Which of the following fish is viviparous -
(a) Salmans (b) Lamprey
(c) Sharks (d) Chimeras
6. Restiform body is present in-
(a) Medulla oblongata (b) Cerebrum
(c) Mid brain (d) Diahcephalon
7. In fishes Isinglass is produced from the -
(a) Scales (b) Stomach
(c) Air bladder (d) Pancreas
8. The fishes which are not an Indian origin but introduced into waters of our nation for culture purposes are called -
(a) Native fishes (b) Exotic fishes
(c) Sewage fishes (d) None of above

SECTION 'B'

4 × 6 = 24

Short Answer Type Questions

UNIT-I

Q.1. Describe principle and types of locomotion in fishes.

OR

Give an account of origin, derivatives and uses of scales of fishes?

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UNIT-II

Q.2. Define swim bladder and give an account of evolution and functions of swim bladder.

OR

Give an account of blood and physiology of blood circulation in fishes.

UNIT-III

Q.3. What do you mean by electric organs? Describe origin & structure of electric organs in fishes.

OR

Describe structure and function of Adrenal gland in fishes.

UNIT-IV

Q.4. Describe economic importance of fish oil and fish manure.

OR

Give detailed account of exotic food and exotic game fishes.