

M.Sc. 1st Semester Examination, 2019

FISHERIES SCIENCE

PAPER —FSC-102(Unit-I + II)

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Write the answers to Questions of each Units in separate books

UNIT – I

(Taxonomy and Classification of Fishes)

1. Answer any two questions : 2 × 2

(a) What is living fossil ? Mention the example of fish with its order.

- (b) Give example of Dipnoan fishes with their order name.
- (c) State about extinct fish. Give two such examples.
- (d) Name four shell fishes of commercial importance with their systematic position.

2. Answer any *two* questions from the following :

4 × 2

- (a) Discuss about morphometric characteristics of fishes.
- (b) Write down the molecular approaches of fish taxonomy.
- (c) Discuss the role of taxonomy in Fisheries Science.
- (d) Give an account on phylogenetic tree.

3. Answer any *one* question from the following :

8 × 1

- (a) (i) State about international commission on zoological nomenclature.

- (ii) Discuss the Law of priority with proper example.
- (iii) Define holotype and paratype with proper explanation.
- (iv) Add a note on Nomen Hybridum. 2 + 2 + 2 + 2
- (b) (i) Classify class Elasmobranchi upto order level with example.
- (ii) Write down the difference between osteichthyes and chondrichthyes.
- (iii) Mention the order name and specimen characters of following fishes :
- Exocoetus Sp.*; *Mystus aor*; *Mugil tade*, *Harpodon nehereus*. 3 + 3 + 2

UNIT – II

(*Biomechanics Distribution and Evolution of Fishes*)

- 4 Answer any *two* questions : 2 × 2
- (a) Why 'Devonian period' is called as the 'Age of Fishes' ?

(b) Mention the distribution of any two lung fishes.

(c) What is amphidromous fish migration ?

(d) Define biological rhythm with example.

5. Answer any *two* questions : 4 × 2

(a) Briefly mention the distinctive features of chimera fish or ghost shark.

(b) Give an account on the zoogeographical realms.

(c) Briefly explain the evolution of bony fishes with phylogenic tree.

(d) Narrate the components of swimming drag.

6. Answer any *one* question : 8 × 1

(a) (i) What is agnathan fish.

(ii) Briefly describe the general accounts of any agnathan fish.

(iii) Write a note on marbled lung fish.

2 + 4 + 2

(b) (i) What is fish migration ?

(ii) Compare between catadromous and anadromous fish migration.

(iii) Add a note on purpose of fish migration.

2 + 4 + 2