

**M.Sc. 1st Semester Examination, 2023**

**FISHERIES SCIENCE**

PAPER – FSC-102

*Full Marks : 50*

*Time : 2 hours*

**Answer all questions**

*The figures in the right hand margin indicate marks*

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

**UNIT— FSC-102.1**

*( Taxonomy, Classification, Biology, Biodiversity and Conservation of Fishes)*

1. Answer any *two* questions of the following :

(a) What is Linnaean hierarchy ?

2 × 2

- (b) Write the Order name of Sea Bass. How to differentiate male from female Sea Bass.
- (c) State the habit and habitat of *Penaeus monodon*.
- (d) What is Red Data Book ? State its importance.

2. Answer any *two* of the following : 4 × 2

- (a) Discuss important rules of zoological nomenclature.
- (b) Give an account on the conservation of fishes.
- (c) Write on the life cycle of *Macrobrachium rosenbergii*.
- (d) How to measure Biodiversity ? Explain with example.

3. Answer any *one* of the following :  $8 \times 1$

(a) Define Exotic and Invasive species. State on Endangered and Vulnerable fishes in India. Add a note on the regulation related to introduction of exotic species in India.  $2 + 3 + 3$

(b) Give an account on the molecular methods used in fish taxonomy study. Name four order of fishes with their characters and examples. Add a note on extinct fish.  $3 + 4 + 1$

### UNIT— FSC-102.2

( *Geographic distribution, Adaptation and Evolution of fishes* )

4. Answer any *two* of the following :  $2 \times 2$

(a) Write a short note on Agnathan fishes.

(b) State the features of aquatic adaptation of fishes.

(c) Name the realm where Indian sub-continent belongs.

(d) Briefly write on Chimeras.

5. Answer any *two* of the following :  $4 \times 2$

(a) Devonian period is called 'Golden Age of fishes', Explain.

(b) Write a note on different body form of fishes.

(c) Briefly discuss distribution of fishes.

(d) Write a note on living fossil of fishes.

6. Answer any *one* of the following :  $8 \times 1$

(a) Discuss different types of migration exhibited by fishes. Briefly describe the role of hormones in fish migration.  $4 + 4$

(b) Answer the following :

4 + 4

- (i) Name the characteristic faunal composition of Neo-tropical realms.
- (ii) What do you mean by Wallace Line ?  
Write the importance of Wallace Line in Zoogeographical realm.

**[ Internal Assessment — 10 Marks ]**

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