

**2017**

**M.Sc. 2nd Semester Examination**

**FISHERIES SCIENCE**

**PAPER—FSC-201**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the 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**

*(Fresh Water Ecology)*

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

(a) What s bog and fen ?

(b) Why wetland ecosystem is called as "Biological Supermarket" ?

*(Turn Over)*

- (c) Mention the significance of nutrient cycle.
- (d) Define mangrove. Write the scientific name of dominant species of Indian Sundarbans.

2. Answer any *two* questions from the following : 4×2

- (a) Briefly narrate the abiotic factors of an aquatic ecosystem.
- (b) Describe nitrogen cycle with flow diagram.
- (c) Briefly explain the threats of wetland ecosystem.
- (d) Discuss the Universal energy flow model with diagram.

3. Answer any *one* question from the following : 8×1

- (a) Define primary and secondary productivity. Give an account on the chemical characteristics of freshwater environment. Add a note on thermal stratification of freshwater bodies. 2+3+3

(b) Write note on : (any *two*)

- (i) Conservation process of aquatic ecosystem ;
- (ii) Grazing food chain ;
- (iii) Biotic Communities of rhithron zone ;
- (iv) Plankton and nekton. 4+4

**Unit—II***( Saline Water Ecology )*

4. Answer any *two* questions from the following : 2×2
- (a) Define holoplankton and meroplankton.
  - (b) Why estuarine ecosystem is more productive than other ecosystem ?
  - (c) 'Transparent/clear water is not suitable for fish culture'. Why ?
  - (d) Briefly explain the relationship between phytoplankton and zooplankton.
5. Answer any *two* questions from the following : 2×4
- (a) Briefly explain the structure of sea-beach with diagram.
  - (b) Describe prey-predator relationship in aquatic environment with example.
  - (c) Enlist biotic communities of pelagic zone.
  - (d) Briefly narrate indicator species with example.

6. Answer any *one* question from the following : 1×8
- (a) What is coral reef ecosystem ? Enlist the inhabitants of coral reef ecosystem. What are the threats of coral reef ecosystem. 2+3+3
- (b) Write note on : (any *two*)
- (i) Godavari estuary ;
  - (ii) ICZM ;
  - (iii) Continental shelf and tides. 4+4
-