2019

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.

Unit - 1

(Fresh Water Ecology)

1. Answer any two questions from the following:

 $2 \times 2 = 4$

- (a) Define wetland with example.
- (b) Distinguish between lotic and lentic ecosystem.
- (c) State the significance of benthos.
- (d) Why wetland ecosystem is regarded as 'Biological super market'?

[Turn Over]

2. Answer any two questions from the following: $2 \times 4 = 8$

- (a) Briefly describe sulpher cycle with special emphasis on the role of micro organisms.
- (b) Comment on the biodiversity indices and mention their significance.
- (c) Briefly narrate the threats of aquatic ecosystem.
- (d) Discuss the management of Mangrove ecosystem in Indian context.
- 3. Answer any one question from the following:

1×8=8

- (a) (i) What is productivity of an aquatic ecosystem?
 - (ii) Briefly narrate the physico-chemical characteristics of freshwater ecosystem.
 - (iii) Comment on the role of decomposers in aquatic ecosystem. 2+4+2
 - (b) Short note:
 - (i) Adaptive modifications of rhithron communities.
 - (ii) Universal energy flow model.

4+4

Unit - 2

(Saline Water Ecology)

4. Answer any two questions from the following:

 $2 \times 2 = 4$

- (a) Why estuarine ecosystem is more productive than other aquatic ecosystem?
- (b) State the driving forces of coastal areas.
- (c) Write name of two plankton responsible for light or bright green water colour.
- (d) What is photic zone? State its significance.
- 5. Answer two questions from the following: 2×4=8
 - (a) Briefly narrate the strategies of marine biodiversity conservation.
 - (b) Briefly explain the structure of sea-beach with diagram.
 - (c) Briefly explain the present and future of coastal zone management in India.
 - (d) Write a brief note on biotic communities of pelagic zone.

[Turn Over]

6.	Answer	any	one	question	from	the	following	:

1×8=8

- (a) (i) What is abysal benthic zone of marine ecosystem?
 - (ii) Briefly describe the physico-chemical characteristics of marine environment.
 - (iii) Add a note on adaptation of marine animal. 2+4+2
- (b) Short note:

4+4

- (i) Coral reef ecosystem.
- (ii) Indicator species and its ecological significance.