PG Even Semester Examination, May 2025

ECOLOGY & ENVIRONMENTAL SCIENCE

2nd Semester

Course No. : ECGCC - 551

(Freshwater Ecology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

(Answer any five questions, selecting one from each unit)

Unit - I

1. How are lakes formed? Classify the lakes and write two important points differentiating the lakes from impoundments. 4+8+2=14

2. Write short notes on : 7x2=14
   a) Zonation pattern of lake
   b) Provisioning ecosystem services of lake

Unit - II

3. What is National Wetland Conservation Programme

(Turn Over)

(NWCP)? Mention its objectives. Discuss in detail the institutional framework of NWCP. 2+2+10=14

4. What is Ramsar Convention? Mention its objectives. Elaborate on the major provisions of this convention. Write an explanatory note on the only Ramsar site of Assam detailing its flora and fauna.

1+2+5+6=14

Unit - III

5. Define lotic ecosystem. Write a note on the characteristics of river ecosystem. Discuss briefly about the problems and constraints related to conservation and management of rivers in India.

2+6+6=14

6. Write short notes on : 7x2=14

   a) Zonation in lotic ecosystem

   b) River zones on the basis of presence of fish species

Unit - IV

7. What do you mean by environmental factors in freshwater systems? Describe briefly the various environmental factors that operate in freshwater systems. 2+12=14

8. Mention briefly the importance of the concept of productivity in freshwater ecosystem. Describe briefly the various factors which affect primary productivity in freshwater systems.

4+10=14

Unit - V

9. What are macrophytes? Mention the ecological importance of macrophytes. Describe different life forms of macrophytes growing in littoral zones of a lake with diagrammatic illustrations. 2+2+10=14

10. What do you mean by aquatic insects? Explain the different taxonomic orders of aquatic insects with examples. Discuss their role in freshwater ecosystem.

2+6+6=14

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