

**M.Sc. DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024**  
**SEMESTER 1 : ENVIRONMENTAL SCIENCE**  
**COURSE : 24P1EVST01 : FUNDAMENTALS OF ENVIRONMENTAL SCIENCE**  
*(For Regular - 2024 Admission)*

Duration : Three Hours

Max. Weights: 30

**PART A****Answer any 8 questions****Weight: 1**

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|-----|---|--------------------|
| 1.  | Explain the term carbon footprint                               | (R, CO 2, CO 3)    |
| 2.  | What is 'Ecological guild'?                                     | (U)                |
| 3.  | Write a note on WCMC.   | (R)                |
| 4.  | List out the major effects of radioactive pollution             | (An)               |
| 5.  | What is GIS?  | (U)                |
| 6.  | What do you mean by disaster management?                        | (U)                |
| 7.  | What is meant by character displacement?                        | (E)                |
| 8.  | Explain positive and negative interactions in the ecosystem.    | (A)                |
| 9.  | State Liebig's Law of minimum.                                  | (U)                |
| 10. | Differentiate between pyramid of energy and pyramid of biomass. | (An)               |
|     |   | <b>(1 x 8 = 8)</b> |

**PART B****Answer any 6 questions****Weights: 2**

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|-----|---|---------------------|
| 11. | Describe trophic levels.  | (R)                 |
| 12. | Explain the different phases of disaster.   | (U)                 |
| 13. | Differentiate between Photochemical smog and Sulphurous smog?                       | (An, CO 5)          |
| 14. | 'Phosphorus cycle' is an imperfect cycle. Why it is called so?                      | (An)                |
| 15. | Explain e-waste.  | (E)                 |
| 16. | How does the ecosystem attain stability through redundancy of components?           | (E)                 |
| 17. | What are the primary and secondary parameters that affect air pollution dispersion? | (U)                 |
| 18. | Which are the major two types of species diversity conservation methods?            | (U)                 |
|     |   | <b>(2 x 6 = 12)</b> |

**PART C****Answer any 2 questions****Weights: 5**

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|-----|--|-----------|
| 19. | What is the concept of homeostasis in ecology, and how does it contribute to ecosystem stability?            | (A, CO 3) |
| 20. | Explain in detail species diversity indices and its measurement.   | ( )       |
| 21. | Explain the importance of wetlands and add a note on the international initiatives for wetland conservation. | ( )       |
| 22. | Describe the whole processes involved in the formation of soil.  | (U)       |

**(5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 2	Explain the transnational character of environmental problems and ways of addressing them.	U	1	1
CO 3	Identify the primary environmental problems (e.g., invasive species, climate change, small populations, and pollution) and the science behind those problems.	An	1, 19	6
CO 5	Assess the biological productivity of nature and its relations with mankind.	U	13	2

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;