

MSc DEGREE END SEMESTER EXAMINATION- MARCH 2025**SEMESTER 4 : ZOOLOGY****COURSE : 21P4ZOOT13 : ENVIRONMENTAL SCIENCE- CONCEPTS AND APPROACHES***(For Regular - 2023 Admission and Supplementary 2022/2021 Admissions)*

Duration : Three Hours

Max. Weights: 30

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

1. Comment on the importance of botanical gardens as a biodiversity conservation approach. (E, CO 5)
 2. Write on sand, silt and clay composition. (U, CO 1)
 3. Comment on the influence of *Corioli's* force on winds. (R, CO 2)
 4. Justify the recognition of mountains as separate biomes. (E, CO 6)
 5. What is the importance of polar ice sheets on global water cycle? (R, CO 1)
 6. Comment on 'disturbance hypothesis' for invasion success. (U, CO 7)
 7. Suggest measures to prevent and reduce water logging. (A, CO 4)
 8. Comment on Shannon diversity index. (U, CO 5)
 9. Describe the role of temperature on global patterns of precipitation. (R, CO 2)
 10. Define 'Productive use value' of biodiversity. (U, CO 5)
- (1 x 8 = 8)**

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

11. Describe the 'Theory of Island Biogeography'. (U, CO 6)
 12. Give an account of biosphere reserves. (U, CO 5)
 13. Describe the major attributes of biological invasion. (U, CO 7)
 14. Comment on the role of computer applications in land suitability analysis. (A, CO 4)
 15. Write a description on diastrophisms. (U, CO 1)
 16. Discuss, how air mass and its movement over the Earth influences global climate and precipitation patterns? Add a note on *El nino and La nina*. (E, CO 2)
 17. How faults are formed in rocks? (U, CO 1)
 18. Comment on the role of aerial photography in landscape management. (A, CO 4)
- (2 x 6 = 12)**

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

19. Give an account of the strategies for biodiversity conservation. (U, CO 5)
 20. Elaborate on climate change and its effects on ecosystems and human welfare. *Add a note on international agreements on climate change.* (E, CO 2)
 21. Give an account of restoration ecology. (U, CO 5)
 22. Elaborate on large scale geo-morphological processes. (U, CO 1)
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Examine the concepts of physical environment – Lithosphere, atmosphere and hydrosphere	U	2, 5, 15, 17, 22	11
CO 2	Explain the fundamental and advanced concepts of weather and climate	U	3, 9, 16, 20	9
CO 4	Examine the concepts of Landscape ecology	U	7, 14, 18	5
CO 5	Explain the concepts of Biodiversity and Conservation	U	1, 8, 10, 12, 19, 21	15
CO 6	Evaluate the major environmental and conservation laws and rules as well as illustrate the biogeography of India.	U	4, 11	3
CO 7	Examine the concepts of biological invasions	U	6, 13	3

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