

M.Sc. DEGREE END SEMESTER EXAMINATION- MARCH 2026**SEMESTER 4 : ZOOLOGY****COURSE : 21P4ZOOT13 : ENVIRONMENTAL SCIENCE- CONCEPTS AND APPROACHES***(For Supplementary 2023/2022/2021 Admissions)*

Time: Three Hours

Max. Weights: 30

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

1. Write on folds in rocks (U, CO 1)
2. Suggest measures to manage soil salinity. (A, CO 4)
3. How altitude influence air temperature? (U, CO 2)
4. Write on the ecological role of soil microbes (U, CO 1)
5. Comment on Shannon diversity index. (U, CO 5)
6. Comment on the importance of homestead gardens as a biodiversity conservation approach. (E, CO 5)
7. Comment on the importance of CRZs in India. (U, CO 6)
8. Briefly describe Köppen–Geiger climate classification system. (U, CO 2)
9. Comment on 'natural enemy release hypothesis' for invasion success. (U, CO 7)
10. Define 'Option value' of biodiversity. (U, CO 5)

(1 x 8 = 8)**PART B****Answer any 6 questions****Weights: 2**

11. Explain how earth's solar interception and thermal environment affects climate system. Add a note on *El nino and La nina*. (U, CO 2)
12. Discuss the Climate system of India. (U, CO 3)
13. Describe the various levels of water recharge systems of a river basin. (U, CO 1)
14. Give an overview of the protected areas of India. (U, CO 5)
15. Discuss on the major properties of soil. (E, CO 1)
16. Write notes on Forest Conservation Act, 1980. (U, CO 6)
17. Discuss the process of capability classification in land suitability analysis (U, CO 4)
18. Discuss the impacts of exotics on biodiversity. (A, CO 7)

(2 x 6 = 12)**PART C****Answer any 2 questions****Weights: 5**

19. Give an account of the drivers of biodiversity loss. (E, CO 5)
20. Write an essay on diversity indices. (An, CO 5)
21. Discuss the factors that change the temperature and precipitation patterns over a geographic region. (E, CO 2)
22. Elaborate on the diversity and types of aquatic systems. (E, 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	1, 4, 13, 15, 22	11
CO 2	Explain the fundamental and advanced concepts of weather and climate	U	3, 8, 11, 21	9
CO 3	Outline the climate of India	U	12	2
CO 4	Examine the concepts of Landscape ecology	U	2, 17	3
CO 5	Explain the concepts of Biodiversity and Conservation	U	5, 6, 10, 14, 19, 20	15
CO 6	Evaluate the major environmental and conservation laws and rules as well as illustrate the biogeography of India.	U	7, 16	3
CO 7	Examine the concepts of biological invasions	U	9, 18	3

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