Reg. No ..... Name **24P4008**

M. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 4 - ZOOLOGY

COURSE : **21P4ZOOT13 - ENVIRONMENTAL SCIENCE - CONCEPTS AND APPROACHES**

(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	Comment on 'Bequest Value' of biodiversity.	(U, CO 5)
2.	Describe watershed.	(U, CO 1)
3.	Write a note on break in monsoon.	(R, CO 3)
4.	What is a reference ecosystem?	(U, CO 5)
5.	What are the characteristics of biomes?	(U, CO 6)
6.	How cryosphere influence climate?	(U, CO 2)
7.	Comment on 'empty niche hypothesis' for invasion success.	(U, CO 7)
8.	Briefly describe Köppen–Geiger climate classification system.	(U, CO 2)
9.	Write notes on ion exchange among soil colloids.	(R, CO 1)
10.	Differentiate Shannon Index and Brillouin Index.	(An, CO 5)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Comment on the role of topographic maps in landscape management.	(A, CO 4)
12.	Discuss climate classification.	(E, CO 2)
13.	Write notes on Biological Diversity Act 2002.	(U, CO 6)
14.	Discuss the impacts of exotics on biodiversity.	(A, CO 7)
15.	Write on major types of rocks.	(R, CO 1)
16.	Discuss solubility of oxygen in water and its ecological significance.	(E, CO 1)
17.	Write notes on IUCN.	(U, CO 5)
18.	Comment on the role of computer applications in land suitability analysis.	(A, CO 4)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Elaborate on climate change and its effects on ecosystems and human welfare. Include a description of *El nino and La nina.*	(E, CO 2)
20.	Give an account of the drivers of biodiversity loss.	(E, CO 5)
21.	Comment on Biological Invasions and its impacts on biodiversity, productivity, nutrient cycling.	(E)
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	2, 9, 15, 16, 22	11
CO 2	Explain the fundamental and advanced concepts of weather and climate	U	6, 8, 12, 19	9
CO 3	Outline the climate of India	U	3	1
CO 4	Examine the concepts of Landscape ecology	U	11, 18	4
CO 5	Explain the concepts of Biodiversity and Conservation	U	1, 4, 10, 17, 20	10
CO 6	Evaluate the major environmental and conservation laws and rules as well as illustrate the biogeography of India.	U	5, 13	3
CO 7	Examine the concepts of biological invasions	U	7, 14	3

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