Reg. No ..... Name **24P1015-S**

M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2024

SEMESTER 1 : ENVIRONMENTAL SCIENCE

COURSE : **21P1EVST01 : FUNDAMENTALS OF ENVIRONMENTAL SCIENCE**

(For Improvement / Supplementary 2023/2022/ 2021 Admissions)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	Define pedogenesis.	(U, CO 3)
2.	What is GIS?	(R, CO 5)
3.	What are toxicants?	(U, CO 6)
4.	What do you mean by Inversion?	(U, CO 2, CO 3)
5.	Explain positive and negative interactions in the ecosystem.	(A)
6.	Comment on pre impact phase in a disaster.	(U, CO 6)
7.	What is density dependent action in population control?	(U, CO 5)
8.	What are community reserves? Give example.	(R, CO 5)
9.	What is habitat?	(U, CO 2)
10.	Outline the concept of Community.	(U, CO 1, CO 3)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Differentiate maximum natality and realised natality.	(An, CO 5)
12.	Write a brief note on Wind Rose.	(U, CO 2, CO 3)
13.	Discuss the management of liquid waste and sewage.	(U, CO 6)
14.	Explain the laws of thermodynamics that describe the behaviour of energy	(U, CO 1, CO 3)
15.	Write a brief note on ‘protected areas’	
16.	List out the impacts of sand mining.	(U, CO 3, CO 4)
17.	Comment on Disaster Risk Reduction (DRR).	(U, CO 6)
18.	What are the two laws that explaining the concept of limiting factors?	(R, CO 3)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Elaborate the role of Intergovenmental and Non-Governmental organizations in conservation.	(R, CO 5)
20.	Comment on landslides as an environmental disaster in the mountain regions of Kerala. Explain how this disaster can be managed.	(U, CO 6)
21.	Write a detailed account of ecological pyramids.	(An, CO 1, CO 4)
22.	Explain in detail species diversity indices, its measurement and applications.	(U, CO 1, CO 3)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Recall core concepts and methods of ecological sciences and their application in environmental problem-solving	U	10, 14, 20, 21	13
CO 2	Explain the transnational character of environmental problems and ways of addressing them	U	4, 9, 12	4
CO 3	Identify the primary environmental problems (e.g., invasive species, climate change, small populations, pollution) and the science behind those problems	An	1, 4, 10, 12, 14, 15, 17, 21	16
CO 4	Discover the inter-relationship between organism in population and communities (population ecology).	Cr	15, 20	7
CO 5	Assess the biological productivity of nature and its relations with mankind	Cr	2, 7, 8, 11, 18	10
CO 6	Develop skills required to research and analyze environmental issues scientifically	Cr	3, 6, 13, 16, 19	11

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