

Reg. No

Name

22P1016

M. Sc. DEGREE END SEMESTER EXAMINATION : OCTOBER 2022
SEMESTER 1 : ENVIRONMENTAL SCIENCE
COURSE : 21P1EVST01 : FUNDAMENTALS OF ENVIRONMENTAL SCIENCE
(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Write short note on toxicity of cadmium. (U, CO 6)
2. What does the pyramid of number represent? (U, CO 1, CO 4)
3. State Liebig's Law of minimum. (U, CO 3)
4. What is 'Ecological guild'? (U, CO 1, CO 3)
5. Differentiate between weather and climate. (An, CO 2, CO 3)
6. Write a short note on biovillages. (U, CO 5)
7. Explain vulnerability in the context of disaster management (U, CO 6)
8. Give four examples of Ramsar Sites in India (R, CO 3, CO 4)
9. What are the principles of sustainable development? (R, CO 5)
10. What is density dependent action in population control? (U, CO 5)
(1 x 8 = 8)

PART B

Answer any 6 questions

Weights: 2

11. Write any five applications of GIS in ecosystem monitoring. (R, CO 5)
12. Briefly explain the concept of climax. (U, CO 1, CO 3)
13. Explain the term Homeostasis with example? (U, CO 3)
14. Explain Wind rose with a neat diagram. (U, CO 2, CO 3)
15. Write any five techniques used to measure the productivity. (U, CO 6)
16. What are two major factors regulating the population in ecosystem? (U, CO 5)
17. What is a cyclone? (U, CO 6)
18. List out the ways in which forest fires affect the amount of CO₂ in the atmosphere. (U, CO 6)
(2 x 6 = 12)

PART C

Answer any 2 questions

Weights: 5

19. Comment on landslides as an environmental disaster in the mountain regions of Kerala. Explain how this disaster can be managed. (U, CO 6)
20. Elaborate the role of Intergovernmental and Non-Governmental organizations in conservation. (R, CO 5)

21. What is meant by primary productivity? Describe the methods used for the measurement of productivity. (U, CO 6)
22. Define the concept of community and explain different ways of measuring species diversity in a community. (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	2, 4, 12, 22	9
CO 2	Explain the transnational character of environmental problems and ways of addressing them	U	5, 14	3
CO 3	Identify the primary environmental problems (e.g., invasive species, climate change, small populations, pollution) and the science behind those problems	An	3, 4, 5, 8, 12, 13, 14, 22	15
CO 4	Discover the inter-relationship between organism in population and communities (population ecology).	Cr	2, 8	2
CO 5	Assess the biological productivity of nature and its relations with mankind	Cr	6, 9, 10, 11, 16, 20	12
CO 6	Develop skills required to research and analyze environmental issues scientifically	Cr	1, 7, 15, 17, 18, 19, 21	18

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