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**Presidency University**

**Bengaluru**

 **SCHOOL OF ENGINEERING**

**MAKE-UP EXAMINATION SEP 2023**

**Date**: 03.10.2023

**Time**: 1.00PMM to 4.00PM

**Max Marks**: 100

**Weightage**: 50 %

**Course Code**: CIV 102

**Course Name**: ENVIRONMENTAL SCIENCE AND DISASTER MANAGEMENT

**Program & Sem**: B Tech

 **Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Question paper consists of 3 parts.*

**Part A [Memory Recall Questions]**

**Answer all the Questions. Each Question carries 5 marks. (5Qx 5M= 25M)**

1. The three types of environment are the physical environment, social environment, and culture. Define

 Environment? Explain the concept of environment with Figure? (C.O.1) [Knowledge]

2. There are two types of food chains: the grazing food chain, beginning with autotrophs, and the detrital

 food chain, beginning with dead organic matter.Define food chain and ecological pyramids? (C.O.2) [Knowledge]

3. Burning fossil fuels, cutting down forests and farming livestock are increasingly influencing the climate and the earth's temperature. Define global warming? List any four greenhouses. (C.O.3) [Knowledge]

4. Sustainability is important for many reasons including, Environmental Quality – In order to have healthy

 communities, we need clean air, natural resources, and a nontoxic environment Define sustainability?

 List the key elements of sustainable. (C.O.4) [Knowledge]

5. Physical characteristics of water are determined by senses of touch, sight, smell and taste. List any five

 physical and chemical characteristics of water quality parameters. (C.O. 3) [Knowledge]

**Part B [Thought Provoking Questions]**

**Answer all the Questions. Each Question carries 10 marks. (3Qx10M=30M)**

6. Soil erosion is a gradual process of movement and transport of the upper layer of soil (topsoil) by

 different agents. List and explain any four soil erosion control measures. (C.O.1) [Comprehension]

7. Lakes are formed due to the action of glaciers and ice sheets. Such lakes are formed when glaciers

 erode the land creating a depression. Discuss any five lake types and organisms with examples.

 (C.O.2) [Comprehension]

8.Population growth is based on four fundamental factors: birth rate, death rate, immigration and

 emigration Discuss any five human population characteristics. (C.O.4) [Comprehension]

**Part C [Problem Solving Questions]**

**Answer all the Questions. Each Question carries 15 marks. (3Qx15M=45M)**

 9. a) Write any four indoor air pollutants and their sources. 5M (C.O.3) [Comprehension]

 9. b) Vehicle emissions, fuel oils and natural gas to heat homes, by-products of manufacturing and power

 generation, particularly coal-fueled power plants, and fumes from chemical production are the

 primary sources of human-made air pollution Explain control measures for air pollution. 10M (C.O. 3) [Comprehension]

10. a) What is carrying capacity? Explain the basic components of sustainability.

 5M (C.O. 4) [Comprehension]

 b) Sustainable development is referred to as the idea that human beings should sustain by meeting their basic needs, while also making sure that the future generations are able to meet their basic needs Discuss problems and solutions in achieving sustainable development. 10M (C.O. 4) [Comprehension]

11. a) List the objectives and salient features of Forest conservation act. 5M (C.O. 3) [Comprehension]

 b) The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental

 Rights, Fundamental Duties and Directive Principles. List any ten Govt. Schemes on women

 empowerment and child health. 10M (C.O.4) [Comprehension]