 Roll No. : .....

A000175(020)

B. Tech. (Hon's) (First Semester) Examination
Nov.-Dec. 2023

(New Scheme)

(Specialization : Computer Science Engg.)

ENVIRONMENTAL SCIENCE

(Data Science)

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : *Part (a) is compulsory in each unit and carries 4 marks. Attempt any* ***two*** *parts from (b), (c) and (d) of each unit which carries 8 marks each.*

1. (a) Examine the interconnections bertween population growth, environmental health, and human health.

(b) What do you mean by population explosion? What

factors contribute rto the population growth or decline.

(c) The population of a small town for 5 decades from 1970 to 2010 is given below. Find the population the year 2020, 2030 and 2040 by using geometric increase method.

YEAR	POPULATION
1970	25,000
1980	28,000
1990	34,000
2000	42,000
2010	47,000

(d) What are the unique challenges facing women and children in relation to the environment and human health?

Unit-II

2. (a) Differentiate between renewable and non-renewable resources.

(b) Discuss the direct and indirect utilization of natural resources and their environemental implications.

(c) What are the consequences of overexploitation and pollution of natural resources, and how can we promote conservation through the 3R principle (reduce, reuse, recycle)?

(d) How can individuals and communities contributes to the sustainable use and conservation of natural resources.

3. (a) Explain the concept of niche and ecotone in an ecosystem.

(b) What are the diffrent components of an ecosystem, and how do they interact with each other?

(c) Compare and briefly explain, the terrestrial and aquatic ecosystem, highlighting their unique characteristics.

(d) Write short notes on :

(i) Food chain & Food Web

(ii) Energy Pyramid

Unit-IV

4. (a) How is biodiversity classified into different levels?

(b) Write detailed notes on biodiversity, its measurement and management.

(c) Identify and explain the major threats to biodiversity. How do human population growth and consumption patterns contribute to biodiversity loss?

(d) How can individuals and communities contribute to the conservation of biodiversity?

Unit-V

5. (a) Define ~~population~~ pollution and classify it into different types.

(b) *Explain the concept of Environmental Impact Assessment (EIA) and its role in environmental management.*

(c) Explain in brief the three key stages of disaster management concerning enviornmental pollution.

(d) Explain the role of an engineer in environmental management. Explore the ethical considerations and responsibilities associated with this role.