A **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 59175

B.E./B.Tech. DEGREE EXAMINATION, MAY 2022

Open elective

Computer Science and Engineering

15UCE975 - ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to ECE, EEE, EIE ,MECH,IT ,Chemical ,BME, AGRICULTURE)
(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The outer portion of Heterosphere is called as_____ CO1- R

   (a) Thermosphere (b) Ionosphere (c) Tropopause (d) Lithosphere

2. Thickness of Stratosphere is CO1- R

   (a) 1-18kms (b) 18-50kms (c) 50-85kms (d) 85-500kms

3. In safe drinking water the turbidity value is between_____ CO2- R

   (a) 15 to 25NTU (b) 10 to 15 NTU (c) 10 to 25 NTU (d) 15 to 20 NTU

4. Permanent Hardness is caused due to the presence of _____ CO2- R

   (a) Chlorides& Sulphides (b) Hydrogen ions (c) Organic matter (d) Acidity

5. The size of dust particles is_____ CO3- R

   (a) 0.5to 100 µm (b) 1to 150 µm (c) 1.5to 200 µm (d) 1to 200 µm

6. In India the daily per capita generation of municipal solid waste in small towns is_____ CO3- R

   (a) Paper (b) Paper and pulp (c) Pulp (d) Dust

7. Which series represent the environmental management standards? CO4- R

   (a) ISO 9001 (b) ISO 50001 (c) ISO 14000 (d) ISO 40001

8. The BOD removal efficiency in Activated sludge process is about____ CO4- R

   (a)70-80% (b) 60-98% (c) 85-**90%** (d) 60-80%

9. Which factors affecting efficiency of membrane CO5- R

(a) Total dissolved (b) Viscosity (c) Density (d) Kinematic viscosity

10. Constitution empowers the parliament to make laws regarding CO5-R

(a) Article 48-A (b) Article 51-A (c) Article 253 (d) Article 514

PART – B (5 x 2= 10 Marks)

11. State food chain and food web. CO1- R

12. Define molarity. CO2-U

13. List the different locations of biomedical waste generation. CO3- R

14. List out the some types of E-waste. CO4- U

15. Define environmental impact assessment. CO5- R

PART – C (5 x 16= 80 Marks)

16. (a) Explain in detail about components of environment. CO1- U (16)

Or

(b) Discuss the natural and manmade impacts on land, air and water. CO1- U (16)

17. (a) Explain in detail about dispersion of air pollutants with neat sketches. CO2-U (16)

Or

(b) Explain in detail about the physical and chemical properties of water. CO2-U (16)

18. (a) Explain detail about hazardous waste management. CO3-U (16)

Or

(b) Explain briefly about green houses and global warming. CO3-U (16)

19. (a) Explain in detail about different types of clean technologies. CO4- U (16)

Or

(b) Explain in detail steps involved in environment management system. CO4- U (16)

20. (a) Explain in detail about water act 1974 and air act 1981. CO5- U (16)

Or

(b) Explain in detail about environment impact assessment (EIA). CO5- U (16)