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Question Paper Code: 59175B

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2019

Open elective

Computer Science and Engineering

15UCE975 - ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to ECE, EEE, EIE, MECH, IT and Chemical Engineering branches)

(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. The World Environment day is celebrated on CO1- R
(a) 6th June (b) 5th June (c) 6th July (d) 5th July
3. PH value of treated drinking water is between CO2- R
(a) 6.5 to 8.5 (b) Equal to 7 (c) less than 7 (d) 7 to 14
4. In drinking water chlorides above----- is not permissible CO2- R
(a) 200 ppm (b) 250 ppm (c) 215 ppm (d) 300 ppm
5. The color of the container used for storing animal waste is ----- CO3- R
(a) Yellow plastic bags (b) black plastic bags
(c) white plastic bags (d) green plastic bags
6. Methyl mercaptain is mainly emitted from----- 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. The United Nations Conference on the Human Environment was held at CO5- R
 (a) Stockholm (b) India (c) USA (d) France
10. The principle used for making payment to control the pollution is CO5-R
 (a) Beneficiary pays Principles (b) Precautionary principles
 (c) Principles 15 (d) Polluter- pays principles

PART – B (5 x 2= 10 Marks)

11. What is meant by Ecosystem? CO1- R
12. Define permeability of soil CO2-U
13. Define greenhouse effect. CO3- R
14. Write 3R of waste minimization. CO4- U
15. What are the obstacles in implementing Polluter Pays principles? CO5- Ana

PART – C (5 x 16= 80 Marks)

16. (a) Explain in detail about Structure of the Atmosphere. CO1- U (16)
 Or
 (b) Discuss briefly the concept of Sustainable Development CO1- U (16)
17. (a) Explain in detail about the physical and chemical properties of water. CO2-U (16)
 Or
 (b) Explain the different types of microorganism involved in biological treatment process.. CO2-U (16)
18. (a) Explain in detail about management of municipal sewage CO3-U (16)
 Or
 (b) Explain in detail about causes effects and prevention of air pollution. CO3-U (16)
19. (a) Explain in detail about waste minimization techniques. CO4- U (16)
 Or
 (b) Explain in detail about waste treatment process Active Sludge Process and Trickling Filter CO4- U (16)

20. (a) Explain about the process, contents and benefits of EIA. CO5- U (16)
- Or
- (b) Explain briefly about implementation strategies, benefits and CO5- U (16)
obstacles in Polluter Pays principles.

