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Question Paper Code: 59175

B.E./B.Tech. DEGREE EXAMINATION, DEC 2021

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)

- Interlocking pattern of various food chains is called ----- CO1- R
(a) food chain (b) food web (c) energy flow (d) tropical levels
- The World Environment day is celebrated on CO1- R
(a) 6th June (b) 5th June (c) 6th July (d) 5th July
- 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
- According to Indian standards for drinking water, water with CO2- R
hardness ____ is desirable.
(a) 200 – 300 ppm (b) 250 - 350 ppm (c) 215 - 415 ppm (d) 300 – 600 ppm
- Which color container is used for storing animal waste? CO3- R
(a) Yellow plastic bags (b) black plastic bags
(c) white plastic bags (d) green plastic bags
- Methyl mercaptain is mainly emitted from----- CO3- R
(a) Paper (b) Paper and pulp (c) Pulp (d) Dust
- Which series represent the environmental management standards? CO4- R
(a) ISO 9001 (b) ISO 50001 (c) ISO 14000 (d) ISO 40001
- Which is anaerobic process? CO4- R
(a) composting (b) burning (c) biogas generation (d) none of the above

9. The stage that presents the results of EIA process is CO5- U
 (a) Scoping (b) Reporting (c) Mitigating (d) Monitoring
10. Which of the following is long term effect? CO5-U
 (a) increase in noise due to automobiles (b) Temporary disruption of drainage
 (c) visual problem due to dust (d) surface and subsurface pollution

PART – B (5 x 2= 10 Marks)

11. Write about ecological succession and ecological pyramid. CO1- U
 12. What is soil pollution? CO2-U
 13. Why does flood affects Chennai severely? CO3- U
 14. Write 3R of waste minimization. CO4- U
 15. Why is EIA essential for a project? CO5- U

PART – C (5 x 16= 80 Marks)

16. (a) Discuss in detail about nitrogen cycle and carbon cycle. CO1- U (16)
 Or
 (b) Discuss about the structure of atmosphere with neat sketch. CO1- U (16)
17. (a) Explain in detail about the physical and chemical properties of water. CO2-U (16)
 Or
 (b) Write about global warming and ozone depletion with its impacts. CO2-U (16)
18. (a) Climate change is turning into a serious issue day by day. Discuss on this. CO3-U (16)
 Or
 (b) Discuss about the sources and effects of water pollution. Also suggest remedial measures to reduce air pollution. CO3-U (16)
19. (a) Classify the different sources of waste and explain about them. CO4- U (16)
 Or
 (b) Discuss the concept on Waste minimization. Explain about various minimizing techniques. CO4- U (16)
20. (a) Illustrate the roles of various NGO's in environmental management. CO5- U (16)
 Or
 (b) Explain about precautionary principle and polluter's pay principle. CO5- U (16)