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**Question Paper Code: U9178**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Open elective

Civil Engineering

21UCE978 ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to All branches)

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART – A (5 x 1 = 5Marks)

1. The World Environment day is celebrated on----- CO1-U  
(a) 6<sup>th</sup> June                      (b) 5<sup>th</sup> June                      (c) 6<sup>th</sup> July                      (d) 5<sup>th</sup> July
2. The average value of soil density is---- CO1-U  
(a) 2.65 mg/l                      (b) 3mg/l                      (c) 2.5 mg/l                      (d) 3.5 mg/l
3. Inhalation of carbon monoxide increases ---- CO1-U  
(a) carboxyhaemoglobin                      (b) chlorosis                      (c) necrosis                      (d) all of these
4. Which series represent the environmental management standards? CO1-U  
(a) ISO 9001                      (b) ISO 50001                      (c) ISO 14001                      (d) ISO 40001
5. Shifting of people from a place to another is CO1-U  
(a) Rehabilitation                      (b) Shifting                      (c) Mitigation                      (d) Resettlement

PART – B (5 x 3= 15 Marks)

6. What are the important components of environment? CO1-U
7. What is soil pollution? CO1-U
8. Relate the effects of ozone on plants. CO1-U
9. Mention 3R concept in waste management. CO1-U
10. Why is EIA essential for a project? CO1-U

PART – C (5 x 16= 80 Marks)

11. (a) Discuss in detail about nitrogen cycle and carbon cycle. CO1-U (16)  
Or  
(b) Discuss about 3R concept in waste management CO1-U (16)
12. (a) Explain about physical and chemical properties of water. CO1-U (16)  
Or  
(b) Discuss about global warming and ozone depletion with its impacts. CO1-U (16)
13. (a) Summarize the major environmental problems that you come across in your daily life. CO1-U (16)  
Or  
(b) With a neat sketch, explain landfill process of waste management. CO1-U (16)
14. (a) Explain about CO1-U (16)  
(i) Biodiesel  
(ii) Fuel cells.  
Or  
(b) Give a detailed outline about classifications E-Waste? CO1-U (16)
15. (a) Discuss about community participation in environmental management. CO1-U (16)  
Or  
(b) List out the objectives of environmental protection act. CO1-U (16)