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**Reg. No. :**

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**Question Paper Code: U2031**

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

Second Semester

Civil Engineering

21UGM231- Environmental Science

(Regulations 2021)

(Common to All branches)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. \_\_\_\_\_% of oxygen content in Troposphere? CO1- U  
(a) 19                      (b) 21                      (c) 78                      (d) 1
2. Select the eco-friendly activity from the following, CO1- U  
(a) Burning of solid wastes                      (b) Avoid dustbins  
(c) Reuse the material                      (d) both (b) and (c)
3. The magnitude of earthquake is \_\_\_\_\_ 8.5 in richter scale having ability to CO1-U  
generate water waves  
(a) greater than              (b) lesser than              (c) equal                      (d) Constant
4. The acid rain ----- the pH of water. CO1-U  
(a) Decrease              (b) Increase                      (c) No change                      (d) None of these
5. The two gases making highest relative contribution to the greenhouse gases CO1-U  
are  
(a) CO<sub>2</sub> and N<sub>2</sub>O              (b) CO<sub>2</sub> and CH<sub>4</sub>              (a) CO<sub>2</sub> and N<sub>2</sub>O              (b) CO<sub>2</sub> and CH<sub>4</sub>
6. DNA in cells are affected by CO1-U  
(a) Visible rays              (b) Infra-red rays              (a) Visible rays                      (b) Infra-red rays
7. Preferred population growth pattern is CO1-U  
(a) sigmoid                      (b) exponential                      (c) arithmetic                      (d) None of the above

8. Better standards of living are expected with CO1-U  
 (a) Literacy (b) health care (c) women welfare (d) All of the above
9. At present 95% of energy is obtained from fossil fuels like CO2-U  
 (a) Anthracite (b) Peat (a) LPG (b)Methane
10. The wires containing carbon nano tubes have .....resistance CO2-U  
 (a) lower (b) higher (a) equal (b) None of the above

PART – B (5 x 2= 10Marks)

11. List out the public participating groups. CO1-U
12. What will you do if the corporation water has unpleasant smell? CO1-U
13. List out the green house gases? CO1-U
14. State the role of information technology in Environment. CO1-U
15. What are called nano scale materials? CO2-U

PART – C (5 x 16= 80Marks)

16. (a) Describe the structure and function of ecosystems. CO1-U (16)  
 Or  
 (b) Outline the structure and function of any one of the aquatic ecosystem? CO1-U (16)
17. (a) Elaborate the causes, effects and control measures of water pollution with the recent case study. CO1-U (16)  
 Or  
 (b) Describe the consequences of control measures of landslides and earth quakes CO1-U (16)
18. (a) What is meant by rain water harvesting? Why is it necessary now a days? CO1-U (16)  
 Or  
 (b) Discuss the connection between ozone layer depletion and climate change? Outline the reasons of ozone layer depletion and its impact on environment. CO1-U (16)
19. (a) Draw a typical population pyramid of a developing country and discuss how it is likely to differ from that of a developed country. CO1-U (16)

Or

- (b) Narrate the role of information technology in environment management. CO1-U (16)
20. (a) What is known as energy demand? Compare the present scenario of energy and suggest points for the energy conservation for future. CO2-U (16)
- Or
- (b) Explain the nano properties, characteristics and applications of nano materials CO2-U (16)

