

A

Reg. No:

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 52007**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Second Semester

Civil Engineering

15UCY207 - ENVIRONMENTAL SCIENCE

(Common to ALL branches)

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The establishment of one or more species on a bare area is called as CO1 -R  
(a) Competition      (b) Nudation      (c) Migration      (d) Invasion
2. Western ghats are very rich in endemic species of CO1- R  
(a) Lion      (b) Turtles      (c) Amphibians      (d) Birds
3. Bhopal gas tragedy was due to leakage of CO2- R  
(a) MIC      (b) DDT      (c) C<sub>6</sub>H<sub>6</sub>      (d) Dioxins
4. The radioactive isotope that participates in carbon metabolism of plant is CO2- R  
(a)  ${}_6\text{C}^{12}$       (b)  ${}_6\text{C}^{14}$       (c)  ${}_7\text{N}^{14}$       (d)  ${}_7\text{N}^{13}$
5. Number of neutrons released in a single fission of  ${}_{92}\text{U}^{235}$  by a fast moving neutron is CO3- R  
(a) 3      (b) 4      (c) 2      (d) 1
6. The minimum wind speed required for satisfactory working of a wind generator is CO3- R  
(a) 15 km/hr      (b) 20 km/hr      (c) 21 km/hr      (d) 17 km / hr

7. Which of the following NGO is associated with "Chipko Movement"? CO4- R  
 (a) Kalpavriksh (b) Srishti (c) Dasholi Gram Swarajyamandal (d) Green Peace
8. Most important ozone depleting agent is CO4 -R  
 (a) CFC (b) N<sub>2</sub>O (c) CH<sub>4</sub> (d) Pb
9. HIV pass from infected person to others by CO5 -R  
 (a) Saliva (b) Contaminated blood  
 (c) Contaminated needles and syringes (d) All of these
10. According to Indian constitution article \_\_\_\_\_ provides for equality before law. CO5 -R  
 (a) 17 (b) 14 (c) 19 (d) 25

PART – B (5 x 2= 10Marks)

11. What are the major threats to biodiversity? CO1 -R
12. List the sources of air pollutants. CO2 -R
13. What are the significance of wind energy. CO3 -R
14. What are the causes and effects of global warning. CO4- R
15. Mention the environmental issues of population growth. CO5- R

PART – C (5 x 16= 80Marks)

16. (a) (i) What is an ecosystem? Explain the structure and functions of each components in an ecosystem with example. CO1-U (10)  
 (ii) Explain the major factors that are responsible for the values of biodiversity. CO1-U (6)
- Or
- (b) (i) Explain the structure and function of forest ecosystem. CO1-U (8)  
 (ii) Discuss the concept of conservation of biodiversity. CO1-U (8)
17. (a) (i) What are the sources of thermal pollution? Discuss briefly its effects and control methods. CO2- U (8)  
 (ii) Elaborately discuss the steps involved in solid waste management. CO2- U (8)

Or

- (b) (i) Explain the role of an individual in the prevention of pollution. CO2- U (10)
- (ii) How does earth quake take place? Explain the steps to be taken to mitigate the earth quake disaster. CO2- U (6)
18. (a) What are renewable and non-renewable energy resources? Why are renewable energy resources preferred for energy utilization now-a-days? Explain in detail. CO3- Ana (16)

Or

- (b) Write notes on tidal energy and geothermal energy. CO3 -U (16)
19. (a) (i) With the help of neat diagram explain rain water harvesting. CO4- U (10)
- (ii) What is meant by acid rain? How does it form? What are the major impacts of acid rain? CO4- U (6)

Or

- (b) (i) Write an elaborate note on the salient features of "The Environmental Protection Act-1986. CO4 -U (8)
- (ii) Discuss various measures for waste land reclamation. CO4 -U (8)
20. (a) (i) What are the objectives and elements of value education? How can it be achieved? CO5- U (6)
- (ii) What is HIV? How is it caused? What are the preventive measures suggested? CO5- U (10)

Or

- (b) (i) Discuss women and child welfare programs practiced in India. CO5 -U (6)
- (ii) Explain the role of information technology in environmental and human health. CO5- U (10)

