



Sai RAM INSTITUTE OF TECHNOLOGY

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CONTINUOUS ASSESSMENT TEST – 3

DEPARTMENT OF SCIENCE AND HUMANITIES

Course Name: Environmental Science & Engineering

Course code: GE8291

Branch : IT& ECE

Year /Sem: II/III

Duration: 3 hours

Date : 25/06/2021

Max. Marks:100

Answer All Questions

PART A (10 x2=20 Marks)

1. State the significance of environmental studies. (CO1)(K1)
2. How cryo preservation technique is used to preserve pollen grains? (CO2)(K3)
3. How remote sensing is used in environmental protection? (CO2) (K3)
4. Choose some physical and chemical methods used to remove oil from marine water? (CO3) (K3)
5. Mention the problems caused by the dam construction. (CO4)(K2)
6. What do you understand by Bio-magnification? (CO4)(K2)
7. Write a note on 3R approach. (CO5)(K2)
8. Define Dobson unit. (CO5)(K2)
9. Differentiate HIV and AIDS. (CO6)(K2)
10. What is meant by NIMBY syndrome?(CO6)(K2)

PART B (5 x 13 = 65 Marks)

11. (a) (i) Substantiate the values of biodiversity with suitable illustration.(7)(CO1)(K1)
(ii)Outline the structure and functions of an ecosystem. (6)(CO1)(K1)
(or)
(b) (i) Describe Ecological Succession with its process.(7)(CO1)(K1)
(ii)Write the causes and effects Man wildlife conflicts. (6)(CO1)(K1)
12. (a) (i) How can we as individuals to conserve natural resources? (7)(CO2)(K3)
(ii) In what ways IT helpful in environment management. Give any two techniques.(6)(CO2)(K3)

(or)

(b)(i) Recommend the best solution to be implemented for industrial and nuclear disaster with suitable case studies.(6)(CO2)(K3)

(ii) How is conservation of biodiversity achieved? Give detail. (7)(CO2)(K3)

13. (a) (i) What is deforestation? Explain the causes and effects of deforestation .
(7)(CO4)(K2)

(ii) Explain the effects on over utilization of water. (6)(CO4)(K2)

(or)

(b) (i)Discuss the various techniques for harnessing Solar Energy. (7)(CO4)(K2)

(ii) Explain the effects of fertilizer and pesticide usage in modern agriculture.(6)(CO4)(K2)

14. (a)(i) Describe the method of Rain water harvesting to conserve water.(7)(CO5)(K2)

(ii) Discuss the salient features of the following acts.

(1) Forest conservation Act (2) Air (prevention and control of pollution)Act(6)(CO5)(K2)

(or)

(b) (i) What is meant by Acid Rain? How does it form? What are the major impacts?(7)(CO5)(K2)

(ii) Briefly discuss the problems and concerns related to resettlement and rehabilitation of people. (6)(CO5)(K2)

15. (a)(i) The age structure pyramids serve as useful tool for predicting Population growth trends of a nation. Explain with examples.(7)(CO6)(K2)

(ii) Explain the need for Women and child welfare. (6) (CO6)(K2)

(or)

(b)(i) Discuss the methods and strategies of imparting value education. (7)(CO6)(K2)

(ii) Enumerate the causes and effects of Population explosion.(6)(CO6)(K2)

PART C (1 x 15 = 15 Marks)

16. (a) How do you manage solid waste effectively? Explain the methods to dispose solid wastes. (15)(CO3)(K3)

(or)

(b) Demonstrate technique of waste water treatment with a neat schematic diagram. (15)(CO3)(K3)

COURSE OUTCOMES

Upon successful completion of this course, student will be able to

- CO1:** Understand the relationship between the environment and human activities to maintain the ecological balance. (K1)
- CO2:** Identify societal issues and implement suitable technological solutions to eradicate. (K3)
- CO3:** Acquire skills for scientific problem solving related to environmental pollution and Disaster Management. (K3)
- CO4:** Disseminate the need for the Natural resources and its application to meet the modern requirements. (K2)
- CO5:** Aware of environmental issues and Protection Acts to achieve the Sustainable Development Goals. (K2)
- CO6:** Recognize the need for population control measures and the environmental based value education concepts for attaining an eco-friendly environment. (K2)