

B.E / B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2010

Fourth Semester

U07GM401: ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to ALL Branches of Engineering & Technology)

Time: Three Hours

Maximum Marks: 100

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Population of India follows
 - a. Logarithmic phase
 - b. Endogenous phase
 - c. Exponential phase
 - d. Negative phase
2. Energy crisis in India may be solved with the help of
 - a. Solar power
 - b. Wind power
 - c. Thermal power
 - d. Nuclear power
3. Global warming effect is due to
 - a. Green house gases
 - b. More pollution due to vehicle
 - c. Open firing of wastes
 - d. Environmental degradation
4. HIV can be eradicated by
 - a. Proper nutrient intake of a person
 - b. Medicines
 - c. Killing this virus
 - d. Vaccination
5. Landslides are due to
 - a. heavy downpour in particular hills
 - b. not considering proper drainage in dwelling area
 - c. improper planning
 - d. deforestation
6. Water is polluted in the surface storages due to
 - a. dumping of wastes
 - b. mixing of wastewater
 - c. industrial wastewater
 - d. all the above
7. Hot spots of biodiversity must be preserved to
 - a. safeguard the habitat loss
 - b. avoid poaching
 - c. avoid cutting trees
 - d. guard animals
8. Noise is considered if the level increases above
 - a. 70 decibels
 - b. 50 decibels
 - c. 45 decibels
 - d. 20 decibels
9. Mining activity increases
 - a. Noise pollution
 - b. water pollution
 - c. air pollution
 - d. thermal pollution
10. Air pollution prevention Act protects
 - a. CO₂ level in the atmosphere
 - b. oxygen level in the atmosphere
 - c. nitrogen leveling the atmosphere
 - d. All the above

PART B (10 x 2 = 20 Marks)

11. What is lithosphere?
12. What is nuclear fission?
13. When is water said to be thermally polluted?
14. What is sustainable development?
15. What is the main solution for growing energy needs?
16. Land is a resource not a sink of waste. Prove or disprove this statement.
17. What is the main reason for ozone depletion?
18. What is the role of information technology in environmental protection?
19. Give reasons for ground water contamination.
20. What is the main reason for climate change?

PART C (5 x 14 = 70 Marks)

21. a) (i) Explain various source of energy. (8)
(ii) How does mining affect forest and settlement? (6)
(OR)
b) How does over-utilization of surface and ground water affect the status of water?
22. a) (i) Describe the structural and functional aspects of our ecosystem. (10)
(ii) Explain the food chain and food web. (4)
(OR)
b) (i) Enumerate the factors responsible for loss of biodiversity. (7)
(ii) What are the objectives of wild life protection Act? (7)
23. a) (i) Explain the various sources of soil pollution and its control. (7)
(ii) Classify the air pollutants and discuss their effects. (7)
(OR)
b) (i) What are the factors essential for the design of earthquake resistant structures. (7)
(ii) What are landslides? What are its causes and what impact is on its ecosystem. (7)
24. a) Why is rainwater harvesting important nowadays? How is nuclear energy obtained without causing accidents?
(OR)
b) (i) Explain the concepts of sustainable developments. (7)
(ii) Discuss the role of CPCB in Pollution control activities of India. (7)
25. a) (i) What impact does population explosion have on environment? (7)
(ii) Describe family welfare programme. (7)
(OR)
b) Describe role of Information Technology in environment and human health with case studies.
