

B.E/B.TECH., DEGREE EXAMINATIONS: NOV/DEC 2010

Third Semester

CHY 107: ENVIRONMENTAL SCIENCE & ENGINEERING

(Common to Computer Science and Engineering, Electrical & Electronics Engineering and Information Technology)

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10 x 1 = 10 Marks)

1. Identify the non – renewable source of energy from the following
a) coal b) fuel cells c) wind power d) wave power
2. Which of the following forms of land degradation is more prevalent in India?
a) desertification b) soil erosion c) land slide d) soil subsidence
3. In an aquatic ecosystem phytoplankton can be considered as a
a) consumer b) producer c) saprotrophic organisms d) macro consumer
4. Genetic variation between distinct population of the same species is known as
a) species diversity b) ecosystem diversity c) genetic diversity d) biodiversity
5. Which of the following is an air pollutant?
a) nitrogen b) carbon monoxide c) hydrogen d) oxygen
6. Bio – medical waste may be disposed off by
a) incineration b) autoclaving and land filling c) composting d) neutralization
7. The primary cause of acid rain in the world is
a) carbon dioxide b) sulphur dioxide c) carbon monoxide d) ozone
8. Major compound responsible for the depletion of ozone layer is
a) O₂ b) CFC c) CO₂ d) CH₄
9. The average life expectancy around the world is currently
a) decreasing b) increasing c) not changing d) stabilizing
10. HIV is not likely to be transmitted by which of the following?
a) sharing needles b) breast-feeding c) blood transfusion d) mosquito bites

PART B (10x2=20 Marks)

11. Define the term deforestation.
12. What is meant by desertification?
13. What is food web?
14. What is meant by the term hot spots in biodiversity?
15. Define the term soil pollution.
16. What are the impacts of marine pollution on aquatic life?
17. What is climate change?
18. Define the term sustainable development.
19. What is meant by doubling time in population?
20. What is the major objective of family welfare programme in India?

PART C (5x14=70 Marks)

21. a) (i) "Environmental damages caused by mining last long after the mine has closed".
Explain. (7)
(ii) List the major arguments cited against the construction of dams. (7)
(OR)
- b) (i) Explain the adverse environmental impacts of modern agriculture. (7)
(ii) Write a note on land degradation. (7)
22. a) (i) Explain the role of producers, consumers and decomposers in an eco system. (7)
(ii) Discuss briefly on the concept of ecological pyramids. (7)
(OR)
- b) (i) Explain briefly on conservation of biodiversity. (7)
(ii) Discuss the status of India as a mega diverse nation of biodiversity. (7)
23. a) Discuss briefly on sources, effects and control measures of air pollution. (7)
(OR)
- b) (i) Explain briefly on solid waste management. (7)
(ii) Discuss the sources, effects and control measures of thermal pollution. (7)
24. a) (i) Write a note on rain water harvesting and water shed management. (7)
(ii) What are the major issues associated with resettlement and rehabilitation? (7)
(OR)
- b) (i) Explain the phenomenon of global warming and the factors contributing to it. (7)
(ii) Discuss the constitutional provisions in India for environmental protection. (7)
25. a) (i) Explain the environmental problems posed by population explosion. (7)
(ii) Discuss the salient features of the universal declaration of human rights by UN. (7)
(OR)
- b) (i) Explain the evolution of women and child welfare programmes in India. (7)
(ii) What are the modes of transmission of HIV and how can it be prevented? (7)
