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

Fourth Semester

U07GM401: ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to All Branches)

Time: Three Hours   **Maximum Marks: 100**

Answer All Questions:-

PART A (10 x 1 = 10 Marks)

1. Our Civilization faces a unique crisis in the form of _____

   A) Food shortage   B) Environmental pollution   C) Timber shortage   D) Coin shortage

2. The predominant cause for deforestation has been identified as

   A) Over – exploitation   B) Over grazing   C) Illegal encroachments   D) All of the above

3. In photosynthesis, plants use carbondioxide and _____ to make sugar.

   A) Oxygen   B) Nitrogen   C) Water   D) Light

4. The Biome is a

   A) Ecological unit   B) Biogeographic Unit   C) Geological Unit   D) Biological Unit

5. Following are two green house gases

   A) CO_2 and N_2 B) CO_2 and NO_2 C) O_2 and CH_4 D) CH_4 and NO_3

6. Pure water has a pH of

   A) O   B) 6   C) 7   D) 8

7. The land area that ultimately drains into a particular watercourse or body of water is called

   A) Aquifer   B) Watershed   C) Reservoir   D) River

8. Climate change depends on

   A) Variations in Earth's orbital characteristics   B) Variations in atmospheric carbondioxide

   C) Volcanic eruptions   D) All the above

9. The population of India today is about

   A) 90 Billions   B) 100 Millions   C) 115 Billions   D) 130 Billions

10. AIDs stands for

    A) Acquired Immune Deficiency Syndrome   B) Activated Immune Drawback System

    C) Acquired Immune Drawback Syndrome   D) Actual Immune Deficiency Syndrome

PART B (10 x 2 = 20 Marks)

11. What is meant by 'water logging'?

12. What is meant by 'land degradation'?

13. What are the three main types of ecosystems?

14. What is meant by 'food webs'?

15. What are the impacts of air pollution on aquatic life?

16. Suggest measures to control air pollution

17. How is acid rain caused?

18. Suggest methods for rain water harvesting.

19. What are the factors that influence the size of population?

20. What is value education?

PART C (5 x 14 = 70 Marks)

21. (a) (i) Write a brief note on the water resources of India.

    (ii) What are the environmental effects of extracting and using mineral resources?

(OR)

  (b) Write a descriptive note on the renewable and non renewable energy sources in India.

22. (a) (i) Briefly describe the structure and function of an ecosystem.

    (ii) What are the major threats to biodiversity?

(OR)

  (b) Describe the types, characteristic features and function of aquatic ecosystem.

23. (a) Give the causes, effects and control measures of water pollution.

(OR)

  (b) Give the causes, effects and control measures of urban wastes

24. (a)(i) What are the main issues and impact of resettlement and rehabilitation of people?

    (ii) Give a case study on the resettlement and rehabilitation of people in relation to the construction of a dam project.

(OR)

  (b) Discuss in detail the Water (Prevention and control of pollution) Act.

25. (a) Explain two models to understand population growth.

(OR)

  (b) (i) Describe the methods that are being adopted for controlling human population.

    (ii) Give the need for HIV / AIDS education.

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