

B.E. / B. TECH. DEGREE EXAMINATIONS: APRIL / MAY 2009

Fourth Semester

U07GM401 Environmental Science and Engineering

(Common to All Branches)

Time: Three Hours**Maximum Marks: 100****Answer ALL the Questions:-****PART A (20 x 1 = 20 Marks)**

1. The hydrosphere covers the earth in the ratio of :
A. One fourth B. Three fourth C. One third D. Two third
2. Coal is a:
A. Fossil fuel B. Non-fossil fuel C. Liquid fuel D. Gaseous fuel
3. The forest canopy acts a sink for the gas:
A. Carbon Monoxide B. Nitrogen C. Carbon Dioxide D. Methane
4. The excessive growth of water plants and algae in a lake is called:
A. Nitrification B. Phosphorization C. Eutrophication D. Degradation
5. Eco-pyramids for an ecosystems are diagrammatic representation of:
A. Trophic levels B. Phosphor levels C. Carbon levels D. Nitrogen levels
6. Omnivores are those animals eating:
A. Only meat B. Only plants C. Both D. Ants and insects
7. The illegal killing of animals is called:
A. Hunting B. Slaughtering C. Butchering D. Poaching
8. The areas which are unusually rich in Bio diversity (endemic and endangered) are called:
A. Rich areas B. Costly areas C. Hot spots D. Cold spots
9. Methemoglobinemia – the blue baby disease is caused due to excess of -----in water:
A. Chlorides B. Nitrates. C. Fluorides. D. Lead.
10. E-coli are found in the ----- of animals:
A. Stomach B. Liver C. Intestines D. Blood
11. Carbon monoxide is produced due to:
A. Complete combustion. B. Incomplete combustion.
C. Oxidation. D. Reduction.
12. Temporary Threshold Shift (TTS) is:
A. Unable to hear some sounds B. Unable to hear weak sounds
C. Total Deafness D. Unable to hear weak sound for some time

13. The Strategies for sustainable developments needs:
 A. Long term planning. B. Short term planning.
 C. Optimal planning. D. Economical planning.
14. The main gas leading to the Ozone layer depletion is :
 A. Carbon Monoxide B. Carbon dioxide.
 C. Chlorofluorocarbon. D. Chloroform.
15. The Minamata disease in Japan was a case of :
 A. Lead poisoning B. Cyanide poisoning.
 C. Mercury poisoning. D. Arsanite poisoning.
16. Chernobyl disaster is a:
 A. Gas tragedy. B. Earthquake tragedy.
 C. Cyclone tragedy. D. Nuclear tragedy.
17. The gas responsible for Bhopal gas Tragedy is :
 A. Chlorofluorocarbon. B. Methylene Arsenate.
 C. Methylene Isocyanates. D. Carbon monoxide.
18. Diarrhea and polio are:
 A. Water borne diseases. B. Air borne diseases.
 C. Due to solid waste dumping. D. Sewage disposal on land
19. HIV is responsible for:
 A. Tuberculosis B. Monkey fever. C. AIDS. D. Dengue fever.
20. The first state to digitize twenty million land records as on 2005 is:
 A. Karnataka. B. Tamilnadu. C. Andhra Pradesh. D. West Bengal.

PART B (5 x 16 = 80 Marks)

- 21.(a) Write an explanatory note on the importance and methods of water conservation. (16)
 (OR)
- 21.(b) (i) What is deforestation and what are its causes? (8)
 (ii) Explain why drought occurs and what are its impacts? (8)
- 22.(a) Explain the structure and function of an ecosystem along with its significance. (16)
 (OR)
- 22.(b) Write an explanatory note on conservation of soil and its protection from water and wind erosion. (16)

- 23.(a) (i) Enunciate the producer – consumer concept in an ecosystem. (8)
(ii) With a diagram show how energy is uni-directional as compared to nutrients. (8)

(OR)

- 23.(b) (i) Define eco-pyramid. With a neat sketch, explain the number pyramid along with significance for a grassland ecosystem. (10)
(ii) What are biodiversity – hot spots? (6)

24. (a) Explain any two of the following water pollutants with reference to the causes, effects and remedial measures:

(i) Nitrates. (ii) Fluorides. (iii) Hardness. (iv) pH (16)

(OR)

24. (b) Explain the reasons and effects of:

(i) Global Warming

(ii) Acid Rain

(16)

25. (a) (i) What is meant by population explosion and explain the role of family planning programme in controlling it. (8)

(ii) How elephantiasis is caused and what are its symptoms? (8)

(OR)

25. (b) (i) What is HIV? Enumerate the factors affecting the modes of its transmission. (8)
(ii) Mention the definition and objectives of value education. (8)

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