



Date: 23-04-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART -A**

**Answer ALL the questions**

**(10 x 2 =20 marks)**

1. Define calorific value of fuel.
2. Mention any two examples of renewable and nonrenewable energy sources.
3. What is NPK?
4. Draw the structure of DDT.
5. Define the term COD.
6. What is acid rain?
7. List any two chemicals responsible for global warming.
8. What is the cause of photochemical smog?
9. What is plaster of paris? Give its formula.
10. What are Zeolites? How are they useful in water treatment?

**PART –B**

**Answer any EIGHT questions**

**(8 x 5 = 40 marks)**

11. Discuss the characteristics of a good fuel.
12. Explain the following a) Cracking b) Octane rating.
13. What are bio pesticides? How is it advantageous over chemical pesticides?
14. Mention the uses of a) Urea b) Insecticides
15. Mention the steps involved in the manufacture of Ethanol from Molasses.
16. Explain the principle involved in desalination of water.
17. How is water quality ascertained? Mention the various standards used for measuring the quality of water?
18. Draw the structure of EDTA and outline the principle involved in the estimation of hardness of water using EDTA.
19. Mention the ill effects of lead and mercury poisoning
20. Explain the causes and consequences of acid rain.
21. What is meant by setting of cement?
22. Write a note on different kinds of pollution.

**PART – C**

**Answer any FOUR questions**

**(4 x 10=40 marks)**

23. Explain different types of coal, their properties and uses.
24. Discuss the role of micronutrients in plant growth.
25. Explain softening of water by a) soda process b) Ion exchange resin method.
26. Mention the sources of air and water pollution.
27. Discuss the importance of the following materials a)lubricants and greases  
b)rubber c)glass d)Perfumes
28. a) What is superphosphate of lime? Discuss its preparation.

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