Date: 03/05/2013   Dept. No.   Max. : 100 Marks
Time: 1:00 - 4:00

PART – A

Answer ALL questions: **(10 x 2 = 20 marks)**

1. What is dehydrodesulphurisation?

2. Define octane number. How is related to the quality of a fuel?

3. Name any two plant growth hormones.

4. Write the structure of aspartame and give one of its uses.

5. What is meant by permanent and temporary hardness?

6. Why should break point chlorination be carried out?

7. What is meant by good and bad ozone?

8. What purpose do patents serve?

9. Write the composition of optical glasses.

10. What is a detonator? Give an example.

PART – B

Answer any EIGHT questions: **(8 x 5 = 40 marks)**

11. How is tetraethyl lead produced? What is its use?

12. Differentiate between bituminous coal and anthracite coal.

13. Discuss the synthesis of saccharin.

14. Write a brief note on fumigants.

15. How is total hardness of water determined by EDTA method?

16. Describe the process of reverse osmosis.

17. Explain the process of removal of BOD load in activated sludge reactors.

18. Discuss the biochemical effects of sulfur dioxide.

19. Write briefly on photochemical smog.

20. Discuss the toxic effects of lead and mercury.

21. How is pulp manufactured by chemical process?

22. Discuss the manufacture of Portland cement.

PART – C

Answer any FOUR questions: **(4 x 10 = 40 marks)**

23. Describe the production of Gobar gas and mention its composition.

24. Explain the refining of crude petroleum and give the major use of each reaction.

25. How is ethanol obtained from molasses? Explain the process.

26. a. Write the preparation of superphosphate and triple superphosphate. (5)

    b. Give a brief account of flavouring agents used in food.

27. Discuss the Zeolite and ion-exchange processes of water softening.

28. What is green house effect? What are its consequences?

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