



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc. DEGREE EXAMINATION – CHEMISTRY**

**SIXTH SEMESTER – NOVEMBER 2016**

**CH 6611/CH 6605 – INDUSTRIAL CHEMISTRY**

Date: 09-11-2016

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

**PART – A**

**Answer ALL questions.**

**(10 x 2 = 20)**

1. Mention the characteristics of solid fuels.
2. Mention the characteristics of bituminous coal.
3. What are micronutrients? Give examples.
4. Explain NPK fertilizers with examples.
5. Define break point chlorination.
6. Give the disadvantages of hard water.
7. What is COD?
8. How does ozone depletion occur?
9. What are abrasives?
10. Define vat dyes.

**PART – B**

**Answer any EIGHT questions.**

**(8 x 5 = 40)**

11. Explain the production and uses of tetraethyl lead.
12. Discuss the classification of pesticides with example to each type.
13. Explain refining and grading of sugar.
14. How are DDT and BHC manufactured?
15. Discuss the effect of iron and manganese in water.
16. How are zeolite and ion exchange processes helpful in softening hard water?
17. Explain the waste water treatment.
18. What are the sources of air pollution? How can it be controlled?
19. Explain the biochemical effects of lead and mercury pollution.
20. (a) What is acid rain? How is it caused?  
(b) Explain photochemical oxidants.
21. How is cement manufactured?
22. Explain the following:
  - (a) petrochemicals
  - (b) explosives.

**PART – C**

**Answer ANY FOUR questions.**

**(4 x 10 = 40)**

23. Explain the different types of coal, their properties and uses.
24. How are gobar gas and natural gas produced? Mention their composition and uses.
25. Explain the preparation of Bordeaux mixture and Saccharin.
26. (a) Explain insecticides and bio-pesticides. (5)  
(b) Discuss the role of pharmaceutical industries. (5)
27. Explain the estimation of hardness of water by EDTA method.
28. Discuss air pollution and water pollution.

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