



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

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

SIXTH SEMESTER – APRIL 2017

**CH 6617- INDUSTRIAL CHEMISTRY**

Date: 20-04-2017  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART A**

**ANSWER ALL QUESTIONS**

**10 x 2 = 20 Marks**

1. Arrange the following in increasing order of carbon content: Peat, Anthracite, Bituminous Coal and Lignite
2. Mention any four liquid fuels.
3. What is CAN? Write its chemical formula
4. Distinguish Rodenticide from Herbicide.
5. Mention the disadvantages of hard water.
6. What is mitigation?
7. Mention any four green house gases.
8. What is the role of CFC on environment.
9. What is Portland cement?
10. What is Teflon and mention the advantages of Teflon.

**PART B**

**ANSWER ANY EIGHT QUESTIONS**

**8 x 5 = 40 Marks**

11. What is Gobar Gas? Mention its composition and uses.
12. What are the parameters to be considered for a liquid fuel ?
13. Classify the following as insecticides or herbicides or fungicides. i) Carbamates ii) Dithiocarbamates iii) Nitrophenols iv) Organophosphates v) Dipyriddy
14. What is Saccharin? Outline the synthesis of Saccharin from Toluene.
15. Draw the structure of 2,4-D and 2,4,5-T. Mention its uses.
16. Explain the parameters necessary for water used for drinking purpose.
17. What are the common water pollutants present in domestic sewage water? Mention the effect of pollutants in it.
18. What is EDTA? Draw its structure and outline the principle of estimation of Calcium in hard water using EDTA.
19. Mention the ill effects of sulphur dioxide to humans.

20. Mention the ill effects of mercury and lead poisoning.
21. What are the constituents of glass? How are they classified based on their colour and composition?
22. Write a note on the preparation of paper from pulp.

**PART C**

**ANSWER ANY FOUR QUESTIONS**

**4 x 10 = 40 Marks**

23. a) Explain how octane rating varies with different types of hydrocarbons. (6)
- b) Write a note on the classification of coal based on the carbon content and calorific value (4)
24. a) What are insecticides? Write a note on the classification of insecticides (6)
- b) Distinguish Direct Fertilisers from Mixed fertilisers (4)
25. a) How is urea prepared? Why it is superior compared to other nitrogen containing fertilisers? (5)
- b) Explain any one method adopted for destroying bacteria and harmful pathogens in water (5)
26. Explain in brief about the waste water treatment by flocculation method.
27. Explain in brief the various sources of air and water pollution.
28. a) Explain the following terms i) thermoplastics ii) thermosetting plastics (5)
- b) Mention the steps involved in the manufacture of Ethanol from Molasses. (5)

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