

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



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

**SIXTH SEMESTER – APRIL 2016**

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

**(UPTO 11-BATCH)**

Date: 23-04-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART - A**

Answer **ALL** questions:

(10 x 2 = 20 Marks)

1. Define Calorific value of fuels.
2. Mention the characteristics of bituminous coal.
3. How is tetra ethyl lead produced? Give any two uses.
4. Explain NPK fertilizers with examples.
5. Bring out the difference between super phosphate and triple super phosphate.
6. How does permanent hardness differ from temporary hardness.
7. What is enhanced green house effect?
8. How does ozone depletion occur?
9. What are the different types of glasses?
10. Define Vat dyes.

**PART-B**

Answer any **EIGHT** questions:

(8 x 5 = 40 Marks)

11. Explain Gobar electric cell.
12. Discuss the classification of pesticides with example to each type.
13. How is total hardness determined by a) Hehner's method & b) EDTA method.
14. How are DDT and BHC manufactured?
15. Explain the following techniques a) reverse osmosis & b) Break point Chlorination.
16. How zeolite and ion exchange processes are helpful in softening hard water.
17. What are the sources of air pollution? How to control it?
18. a. How is the use of secondary treatment related to COD to BOD ratio?  
b. What is acid rain? How is it caused?
19. Write short notes on: a) ISI Specification      b) Purpose and procedure of Patent right.
20. a) What are the requisites of a good fuel?  
b) Bring out the relationship between knocking in engines and octave number.
21. How is cement manufactured?
22. a) What are special paints? Explain.  
b) How is carborundum manufactured?

**PART - C**

Answer any **FOUR** questions:

(4 x 10 = 40 marks)

23. How is crude petroleum refined? What are the different fractions? How are they used?

24. How are gobar gas and natural gas produced? Mention their composition and uses.

25. How is ethanol manufactured from molasses?

26. Write in detail about the different stages involved in waste water treatment.

27. a. Define the term toxicology.

b. What are the biological effect of lead and mercury?

28. Write a note on:

a) 2, 4 – D

b) fumigants

c) bio pesticides

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