

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – CHEMISTRY

SIXTH SEMESTER – APRIL 2018

CH 6611– INDUSTRIAL CHEMISTRY

Date: 19-04-2018

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer ALL questions

(10 x 2 = 20 marks)

1. Define COD and BOD.
2. What are NPK fertilizers? Give example.
3. Distinguish between temporary and permanent hardness.
4. Explain Gobar – Electric cell.
5. How are glasses classified? Give example.
6. Define octane Number.
7. Explain how cyanide pollution occurs.
8. Mention the constituents of Portland cement.
9. Explain lime-soda process of water softening.
10. What are the different classes of pesticides?

PART – B

Answer any EIGHT questions:

(8 x 5 = 40 marks)

11. How are superphosphate of lime and triple super phosphate manufactured? How is triple phosphate superior to superphosphate of lime?
12. How is total hardness estimated by O. Hehner's method?
13. Give an account on natural gas and Gobar gas with special reference to their production, composition and uses.
14. Write a note on ambient air quality measures and regulations.
15. How are tetraethyl lead, ETBE and MTBE produced? Mention their uses.
16. Explain the ion exchange and zeolite process of water softening.
17. Write a note on paper and rubber industries.
18. How are sugars refined and graded?
19. Explain waste water treatment.
20. Explain the sources, consequences and prevention of air pollution.
21. How are Mordant and vat dyes prepared? Mention their uses.
22. Write short notes on the following:
 - a) Green house effect
 - b) ozone layer depletion.

PART – C

Answer any FOUR Questions:

(4x10=40)

23. a. Write a note on the purpose and procedure of patent rights.
b. What are the biochemical effects of mercury?
24. a. How is ethanol manufactured from molasses by fermentation?
b. How are the following manufactured?
i) DDT ii) BHC
25. a. Define calorific value. What are the conditions for a good fuel?
b. Give an account on the different types of coal.
- 26 Explain the principle and the application of reverse osmosis and desalination.
27. a What are petrochemicals? Mention their applications
b. Mention the composition of special paints? How are they manufactured?
28. a. Explain the role of micronutrients and biofertilizers in plant growth.
b. How are fuels classified? Give an example for each type.
