

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SIXTH SEMESTER EXAMINATION, MAY 2016

THIRD YEAR [BATCH 2013-16]

INDUSTRIAL CHEMISTRY (Honours)

Date : 07/05/2016

Time : 11 am – 1 pm

Paper : VII [Unit – II&III]

Full Marks : 50

Unit - II

Answer any six questions :

[6×5]

1. a) Draw a flow sheet showing petrochemical feed stock sources. [2·5]
b) What are the petrochemicals produced from Ethylene. Show the products with the help of flow diagram. [2·5]
2. Describe the manufacturing process of Alkyl Benzene sulfonate from kerosene distillate. State its uses. [4+1]
3. Discuss the reforming process for the production of BTX with respect to
 - a) Raw material used
 - b) Reaction involved
 - c) Process flow diagram [5]
4. Briefly describe the manufacturing process of Acrylonitrile from propylene. [5]
5. a) What is oxo-synthesis?
b) Write the reactions involved for the production of butanol using oxo-synthesis.
c) Draw the necessary flow diagram for the production of butanol via oxo-synthesis. [5]
6. a) Ethylene glycol is produced by the reaction of ethylene oxide and water. The ratio of ethylene oxide and water used are 1 : 25 – 30. Explain why large amount of water is necessary? [2·5]
b) Write the reactions for the production of vinyl chloride from Ethyl chloride and uses of vinyl chloride. [2·5]
7. Describe the manufacturing process of styrene in detail. [5]
8. Discuss the current scenario of the petrochemical industry in India and its future prospects. [5]

Unit - III

Answer any four questions :

[4×5]

9. a) What is antibiotic? How it works? [2]
b) Write the manufacturing process of Ampicilline. [3]
10. a) Explain the terms : Antipyretic and Analgesic with examples. [2]
b) Discuss the manufacturing process of paracetamol. [3]
11. a) What is Broad-spectrum antibiotics? [2]
b) Write the trade names of the following basic drugs widely used in the market [3]
 - i) Anti-malarials drug
 - ii) Anti-ambeobies drug
 - iii) Paracetamol
 - iv) Sulpha drug
 - v) Analgesic drug

12. Briefly describe the process with chemical reactions (**any two**) : [2×2·5]
- a) Sulphacetamide starting from Acetanilide
 - b) Plasmaquine
 - c) Phenobarbital
13. a) What are Essential oils? Give two examples of essential oils. Name the methods of extraction of essential oils. [3]
- b) Define the terms Perfume and Fragrance. What are the constituents of perfumes. Give examples of each category. [2]

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