

**10164 : Chemical Engineering Process-II (Organic Chemical Technology) :
6 CH 02**

P. Pages : 2

Time : Three Hours

**AW - 3247**

Max. Marks : 80

- Notes :
1. Answer **three** question from Section A and **three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Diagrams and chemical equations should be given wherever necessary.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Discuss the reaction, mechanism wherever necessary.
 7. Call Phone is not allowed
 8. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. How citric acid is produced by fermentation? 14

OR

2. Explain in detail the production of beer with the help of flow sheet. 14

3. a) Explain the various raw material used in plastic industry. 5

- b) Define polymer? Give classification of polymer based on its application. 8

OR

4. Explain in detail preparation of polyethylene by low pressure Ziegler process with neat sketch labelled diagram. 13

5. a) Define petroleum. Classify it according to their chemical composition and refinery crude petroleum. 6

- b) Explain in detail the manufacturing of cumene via propylene alkylation of benzene. 7

OR

6. a) Discuss the crude refining process of crude oil in brief. 7

- b) What are the different product of refining? 6

SECTION – B

7. Explain Industrial preparation of nitrobenzene in detail. 14

OR

8. How nitration of aromatic hydrocarbon is accomplished? List only five nitrating agent. 14
What is the role of H_2SO_4 in nitration?
9. Explain in detail with flow sheet of Synthesis of methanol from carbon monoxide and hydrogen. 13

OR

10. Discuss the manufacturing of ethanol from ethylene. 13
11. Explain in detail the process of technical oxidation of benzene into useful product. 13

OR

12. a) Discuss the manufacturing of benzene hexachloride (BHC) from benzene. 6
- b) Explain in detail the manufacturing of vinyl chloride from acetylene. 7
