

B.Tech. Sixth Semester (Chemical Engineering) (CBCS) Summer 2022  
**Chemical Engineering Process-II : (Organic Chemical Technology) : 6 CH 02**

P. Pages : 1

Time : Three Hours Forty Five Minutes



AY - 4342

Max. Marks : 80

- Notes :
1. Answer **Three** question from Section A and **Three** question from Section B.
  2. Assume suitable data wherever necessary.
  3. Diagrams and chemicals equations should be given wherever necessary.
  4. Illustrate your answer necessary with the help of neat sketches.
  5. Discuss the reaction, mechanism wherever necessary.
  6. Use of pen Blue/Black ink/refill only for writing the answer book.

**SECTION - A**

1. What is the difference between Industrial & absolute alcohol? Describe in detail the production 100% pure Ethanol. 14

**OR**

2. Explain in detail the manufacturing process of citric acid. Give its uses & application. 14

3. Explain in detail the manufacturing process of SBR. Give its various uses & application. 13

**OR**

4. a) Give the difference between HDPE & LDPE. Discuss its application. 7

- b) Discuss in detail about the natural & synthetic rubber according to its structure, physical & chemical properties. <https://www.sgbaonline.com> 7

5. Explain in detail the manufacturing of isopropanol with neat labelled diag. 13

**OR**

6. a) What is cracking. Discuss in detail the catalytic cracking process. 7

- b) What are the raw materials required for petroleum Industries. Discuss in detail. 6

**SECTION - B**

7. Discuss in detail the production of  $\alpha$ -nitronaphthalene by nitration process. 14

**OR**

8. What is sulfonation and sulfation. Discuss in detail the sulphation of dimethyl ether. 14

9. With the help of neat flow diagram. Discuss in detail the hydrolysis of starch to form dextrin. 13

**OR**

10. a) Define hydrogenation & explain it with example. 5

- b) Discuss in detail the production of methanol from synthesis gas. 8

11. Discuss in detail the production of Vinyl chloride from ethylene. 13

**OR**

12. Explain in detail the manufacturing of Acetic acid by liquid phase oxidation process. 13

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