

**ANNA UNIVERSITY - 2007**  
**B.E/B.TECH MODEL EXAMINATION**  
**CHEMICAL PROCESS INDUSTRIES-II**  
**(CHEMICAL ENGINEERING)**

**TIME-3HOUR**  
**MARK-100**

**ANSWER ALL QUESTIONS**

**PART A (10 X 2 = 20 )**

1. Name the different derivatives of Cellulose and their uses.
2. What are the raw materials for the production of Sugar & Strach?
3. What is meant by Hydrogenation of oils? Why oils are Hydrogenated?
4. Distinguish between Soap and a Detergent.
5. What are the major Constituents of Crude Petroleum?
6. What are petrochemical Precursors? Enlist important Precursors.
7. Distinguish between Thermoplastic and Thermosetting Polymers.
8. Name different Synthetic Rubbers. Give a few applications of Synthetic Rubbers.
9. Write briefly about the production of Viscose Yarn.
10. Name the different additives used for good preservation.

**PART B (5 X 16 = 80 )**

11.i) a) With a neat flow diagram explain the process of pulp making by the Sulphate Pulp Process. b) Write a note on Recovery of chemicals from the black Liquor.

12.A) Describe the process of extracting Vegetable Oils by Mechanical and Solvent Extraction methods.

OR

B) With relevant flow sheets explain the methods of manufacture of Soaps & Detergents.

13.A) What are the different products obtained by the Atmospheric Distillation of Crude Petroleum? Explain with a flow sheet the Refinery Process.

OR

B) What are the Principal Aromatics obtained from Petroleum? Describe the manufacture of Phenol by Toluene Oxidation Process.

14.A) Describe the manufacture of Phenol-Formaldehyde resin with the help of a flow Sheet. What are the applications of this resin?

OR

B) How is the Styrene Butadiene Rubber manufactured? Describe the process using a simplified flow chart.

15.A) Explain with a flow chart the method of manufacture of Nylon Yarn? What is Cellophane?

OR

B) Write a detailed note about the Food Processing and Food Preservation Industry in India.