Type: DES

Q1. With a neat sketch, explain the production of oxygen employing the Linde-Frankl setup (5)

Q2. List 4 uses of oxygen and nitrogen (3)

Q3. Name the different methods used in the production of sodium chloride (2)

Q4. Explain with a neat flow diagram the various unit operations and unit processes involved in the production of starch from maize (5)

Q5. Name four-unit operations with their purpose in the production of sugar from sugarcane (2)

Q6. Name and provide a brief description of the different electrolytic processes and the various cell types employed for the production of caustic soda (3)

Q7. List the uses of Urea and also show how it is manufactured (5)

Q8. Write down the difference between rhombic and monoclinic sulphur. Name the different methods used for the production of sulphur (2)

Q9. What are the main functions of Glover's tower present in the chamber process for the manufacturing of sulfuric acid (3)

Q10. Describe the process of solvent extraction of vegetable oil with a neat flow diagram (5)

Q11. What is the role of a builder added during the synthesis of detergents (2)

Q12. Explain the mechanism of coagulation of latex (rubber molecules). Name the different steps of natural rubber processing (3)

Q13. Explain the different steps of manufacturing of pulp (Kraft process) with a neat sketch of PFD (4)

Q14. Explain the fluidized catalytic cracking process with a neat process flow diagram. Indicate the raw materials and catalysts used, operating conditions and typical products obtained (4)

Q15. Suggest the pretreatment strategies for different raw materials sugar, starch and cellulose before subjecting them into a fermenter unit for the production of ethanol (2)