

T.E- V Sem - Chem
Chemical Technology

(18)

Q.P. Code : . 31064

(3 Hours)

[Total Marks : 80

- N.B. : (1) Question No. 1 is compulsory.
(2) Attempt any three questions out of the remaining five.
(3) Figures to the right indicate full marks.
(4) Draw neat flow diagrams wherever required.

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| 1. | (a) | Describe the manufacturing of soda ash modified Solvay (Dual) process. | 10 |
| | (b) | Discuss the engineering problem involved in the manufacture of hydrochloric acid. | 4 |
| | (c) | Describe various engineering problem associated during the manufacturing of sulfuric acid. | 6 |
| | (a) | Explain how and why xylene isomerisation is carried out. | 10 |
| | (b) | Describe the manufacturing of nitric acid from ammonia. | 10 |
| 3. | (a) | Describe the manufacturing process of urea. What are the engineering problems in urea synthesis process? | 10 |
| | (b) | Explain the manufacturing of sugar with neat flow diagram. | 10 |
| 4. | (a) | Describe manufacture of single superphosphate. Write down the reactions involved in it. How the byproducts that are generated during this process made harmless? | 10 |
| | (b) | Describe the manufacturing of polyethylene by Ziegler process. | 10 |
| | (a) | Explain the manufacturing of acetylene by partial oxidation with neat flow diagram. | 10 |
| | (b) | Describe in detail manufacturing of purified terephthalic acid. | 10 |
| 6. | | Write short notes on (Any Four) | 20 |
| | (a) | Agrochemicals | |
| | (b) | Unit operations and unit processes | |
| | (c) | Reforming and cracking | |
| | (d) | Hydrogenation of oil | |
| | (e) | Soaps and detergents | |

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