

T.E. Chem / Rev / V  
CT  
13/05/15

# Chemical Technology

23

Q.P. Code : 3339

(3 Hours)

[ Total Marks : 80

- N.B. : (1) Question No. 1 is compulsory.  
(2) Solve any 3 questions out of remaining five.  
(3) Draw flowcharts, diagrams wherever necessary.

1. (a) Describe DCDA process used for manufacture of sulphuric acid from elemental sulphur. Also explain why multistage reactor and interpass absorption column is used? 10  
(b) Describe manufacture of biodiesel. 6  
(c) Describe membrane cell used for manufacture of caustic soda. 4
2. (a) Describe solvay process for manufacture of soda ash. 10  
(b) Describe manufacture of ammonia. 10
3. (a) Discuss advantages and disadvantages of various processes used for manufacture of phenol. 10  
(b) Describe manufacture of ethanol from molasses. 10
4. (a) Describe xylenes separation. 10  
(b) What is LDPE, HDPE, LLDPE. Describe manufacture of LLDPE. 10
5. (a) Describe manufacture of phosphoric acid by wet process using hydrochloric acid. 10  
(b) Describe manufacture of nitric acid from ammonia. 10
6. Write short notes on any four 20
  - (i) Present and future trends in chemical industries in India.
  - (ii) Hydrogenation of oil
  - (iii) Perfumery chemicals
  - (iv) Fluidized bed catalytic cracking unit used for naphtha cracking.
  - (v) Effect of operating parameters in Urea process.