

- Q.32 What is manufacturing process for single super phosphate
- Q.33 Describe dry manufacturing process of Portland cement
- Q.34 Write process for manufacturing of urea
- Q.35 Write all the raw material used for Ammonia.

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 With neat flow chart, explain manufacture the sulphuric acid.
- Q.37 With neat flow chart, explain manufacture the sugar.
- Q.38 With neat flow chart, explain manufacture the paper.

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**4th Sem / Branch : CHEMICAL ENGINEERING**

**Subject:- Chemical Technology**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Paper pulp produced by Kraft / Sulphate process is
- a) Bleached Easily      b) Dull white in color
- c) Strong Fibrous      d) Dark colored
- Q.2 Sulfuric acid saturated with  $\text{SO}_3$  is called
- a) Concentrated  $\text{H}_2\text{SO}_4$       b) Sulphurous Acid
- c) Oleum      d) None
- Q.3 Catalyst used during the manufacture of 'Vanaspati ghee'
- a) Zinc      b) Nickel
- c) Platinum      d) None
- Q.4 Which of the following is not a pyrite ore ?
- a) celestite      b) Galena
- c) Gypsum      d) None
- Q.5 Starting raw material for the manufacture of alum is
- a) Alumina      b) Gypsum
- c) Bauxite      d) None

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- Q.6 Frasch process is for  
 a) Making Oxygen      b) Mining Sulphur  
 c) Producing Helium      d) None
- Q.7 Which of the following is not constituent of coffee ?  
 a) Caffeine      b) Nicotine  
 c) Calgon      d) Lignin
- Q.8 Gypsum is chemically  
 a) Calcium chloride      b) Potassium Sulphate  
 c) Sodium sulphate      d) Calcium Sulphate
- Q.9 Hydrolysis of sugar is called  
 a) Hydration      b) Inversion  
 c) Esterification      d) None
- Q.10 The main Component of pyrex glass is  
 a) Zinc      b) Lead  
 c) Boron      d) None

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Cement requires \_\_\_\_\_ temperature
- Q.12 What is the last stage in manufacture of sugar is \_\_\_\_\_
- Q.13 Raw material used for manufacturing of cement
- Q.14 Formula of urea is \_\_\_\_\_
- Q.15 Write the formula of ammonia
- Q.16 Raw material for manufacture of sugar is \_\_\_\_\_

- Q.17 What does "K" stands in fertilizer is \_\_\_\_\_
- Q.18 Formula for slaked lime is \_\_\_\_\_
- Q.19 Name one raw material used in urea production
- Q.20 Write formula of gypsum

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Write methods of vegetable oil extraction. Describe any one method
- Q.22 What is the difference between the soaps and detergents ?
- Q.23 What is continuous hydrolysis and saponification process
- Q.24 Draw the flow sheet for manufacture of detergent
- Q.25 Write the all-raw material used for making pulp
- Q.26 What is mechanical pulping
- Q.27 Describe major engineering problem for sugar industry
- Q.28 Write the types of paper product
- Q.29 What is sulfitation process
- Q.30 What is uses of ammonia ? What is engineering problems while manufacturing ammonia ?
- Q.31 What is manufacturing process for ammonium Nitrate ?