

- Q.29 Explain granulation of fertilizer.

Q.30 Discuss about chemical recovery by Kraft process.

Q.31 Describe about continuous hydrolysis.

Q.32 Write the properties and uses of ammonium phosphate.

Q.33 Draw the flow sheet of contact process for the manufacturing of sulfuric acid.

Q.34 Describe briefly about carbonation process.

Q.35 Discuss any two of the following

(i) Mechanical Pulping (ii) Chemical Pulping

SECTION-D

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

- Q.36 Define paper. Explain the manufacturing step of paper making using fourdrinier machine with diagram.

Q.37 Describe about method of extracting vegetable oil by solvent extraction with the help of flow sheet.

Q.38 With the help of neat flow sheet explain the manufacturing process of urea and discuss about the major engineering problems associated with the process.

No. of Printed Pages : 4
Roll No.

180543/120543/030552/
564/030565/030562/544

**4th Sem.
Branch : Chem.
Subject : Chemical Technology**

Time : 3 Hrs. M.M. : 100

SECTION-A

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

- Q.1 The catalyst used for manufacturing of sulfuric acid by contact process is

 - a) Iron
 - b) Nickel
 - c) Vanadium Pentoxide
 - d) Aluminum Oxide

Q.2 The percentage of Oxygen in atmosphere is about

 - a) 21
 - b) 78
 - c) Less than 1
 - d) 100

Q.3 The main raw material for the production of soap is

 - a) Tallow
 - b) Vegetable oil and caustic soda
 - c) Soda Ash
 - d) Tallow and Soda ash

Q.4 The state with largest production of sugarcane in India is

 - a) Bihar
 - b) Uttar Pradesh
 - c) Tamil Nadu
 - d) None of these

- Q.5 The chemical formula of sucrose is
 a) $C_6H_{12}O_6$ b) $C_6H_{10}O_5$
 c) $C_5H_{12}O_5$ d) $C_{12}H_{22}O_{11}$
- Q.6 Bagasse fibre contain
 a) Cellulose b) Lignin
 c) Pentogens d) All of the above
- Q.7 The factor adversely affecting the fermentation process is
 a) Low concentration b) High concentration
 c) Presence of Air d) None of these
- Q.8 Molasses is a byproduct of
 a) Sugarcane b) Cement
 c) Fertilizer d) Soap
- Q.9 In NPK K stand for
 a) Potassium b) Calcium
 c) Nickel d) Kraft
- Q.10 The detergent is
 a) A Soap b) Used as a catalyst
 c) Used as water softeners d) A cleansing agent
- SECTION-B**
- Note: Objective type questions. All questions are compulsory. (10x1=10)**
- Q.11 Draw the symbol used for continuous fractionator.
- Q.12 Define detergent.
 Q.13 Write the formula for ammonium nitrate.
 Q.14 Write two uses of starch.
 Q.15 Name two byproduct of sugar industry.
 Q.16 Define Portland cement.
 Q.17 Write the formula of urea.
 Q.18 Define solvent extraction.
 Q.19 What do you understand by fertilizer?
 Q.20 Define pulp.
- SECTION-C**
- Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)**
- Q.21 Discuss the piping and instrumentation diagram in brief.
 Q.22 Explain the different types of paper products.
 Q.23 Write the properties and uses of ammonia.
 Q.24 Describe the major engineering problem associated with production of cement.
 Q.25 Draw the flow sheet for manufacturing of ethanol by fermentation of molasses.
 Q.26 Write the manufacturing process of triple super phosphate.
 Q.27 Explain the dry process of Portland cement manufacturing.
 Q.28 Write Comparison between the sulfate and sulfite pulping process.

(2) 180543/120543/030552/
 564/030565/030562/544

(3) 180543/120543/030552/
 564/030565/030562/544