

- Q.19 Explain about equipment layout diagram .
 - Q.20 Difference between soaps and detergents .
 - Q.21 Explain NPK .
 - Q.22 Write about manufacture of kraft paper.

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3rd Sem / Chemical Engineering

Subject:- Chemical Technology

Time : 3Hrs.

M.M. : 60

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 With neat flowchart, explain manufacture the urea.

Q.24 Describe about manufacturing of sugar with uses and flow sheet.

Q.25 Define cement, explain dry process for manufacturing of Portland cement.

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 What is the molecular weight of urea?

 - a) 60
 - b) 70
 - c) 80
 - d) 90

Q.2 Detergents are synthetic soaps like cleansing agents and are also known as:

 - a) Artifacts
 - b) Detritus
 - c) Syndets
 - d) Collagon

Q.3 The sweetest sugar is

 - a) Sucrose
 - b) Fructose
 - c) Maltose
 - d) Glucose

Q.4 _____ is the process whereby the pulp is separated from large shieves, knots and etc.

- a) Shredding
- b) Cutting
- c) Picking
- d) Screening

Q.5 What is the chemical formula of oleum?

- a) $\text{H}_2\text{S}_2\text{O}_7$
- b) $\text{H}_2\text{S}_2\text{O}_8$
- c) $\text{H}_2\text{S}_2\text{O}_9$
- d) $\text{H}_2\text{S}_2\text{O}_{10}$

Q.6 Which of the following is not the main constituent of flyash?

- a) Silica
- b) Aluminium oxide
- c) Ferrous oxide
- d) Nitrous oxide

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

Q.7 What is pulp?

Q.8 Define flow sheet.

Q.9 Write any one name of paper product.

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Q.10 What is catalyst used in manufacture of sulphuric acid by contact process.

Q.11 What is sugarcane residue is called?

Q.12 Draw the symbol of neat exchanger.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

Q.13 Draw the schematic representation of various equipments used in chemical process industry. (Any five)

Q.14 Discuss various additives and their role in soaps.

Q.15 Give comparison of sulphate pulping and sulfite pulping process.

Q.16 Draw the flow sheet for manufacture of detergent.

Q.17 Describe major engineering problems of sugar industry.

Q.18 Explain the fermentation process.

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