

## SECTION-D

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

Q.26 Give brief overview of process of paper making with the help of block diagram.

Q.27 Write & explain the variables affecting the cooking process.

Q.28 Describe the method of preparation of cement with help of neat flow diagram.

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**1st Year / Chemical (P&P)**

**Subject : Introduction to Chemical Engg.  
and Paper Technology**

Time : 3 Hrs.

M.M. : 60

## SECTION-A

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

Q.1 Write types of extractives.

Q.2 Give chemical composition of white liquor.

Q.3 All Sodium Salts expressed as \_\_\_\_\_

Q.4 Define Activity.

Q.5 Name one hardwood.

Q.6 Define pulp yield.

Q.7 Which fibre types has longer length softwood or hardwood.

(120)

(4)

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(1)

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Q.8 Give percentage of lignin in Hardwood & Softwood.

Q.9 Name recurring unit of cellulose.

Q.10 Where is maximum amount of lignin is present.

### SECTION-B

**Note:** Very short answer type questions. Attempt any five questions out of seven questions. 5x2=10

Q.11 Define steam economy.

Q.12 Write the advantages of well packed chips & a low liquor to wood ratio.

Q.13 Define Sulphidity.

Q.14 Define Lignin.

Q.15 Give formula of Active Alkali & Effective alkali.

Q.16 Define Bath ratio?

Q.17 Write three properties of cellulosic fibres.

### SECTION-C

**Note:** Short answer type questions. Attempt any six questions out of eight questions. 6x4=24

Q.18 Give chemical composition of wood.

Q.19 Define Dilution factor.

Q.20 Raw material used for pulping is 100 ton. Find how much liquor is used if bath ratio is 4:1.

Q.21 Define with examples unit operation & unit process.

Q.22 Define Kappa No.

Q.23 Explain Cooking Cycle.

Q.24 Illustrates bleachability & pulp yield.

Q.25 If consistency is 4%. How much amount of OD fiber is present in 1000 ml pulp slurry.