

- Q.24 What are pulp digesters? Describe the different types of continuous digesters used in the paper industry in detail?
- Q.25 How will you classify the different fibrous raw materials used in the manufacture of paper? Discuss each type in detail along with their sources?

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Roll No.

3rd Sem / Branch : Chemical (Pulp & Paper)
Sub.: Pulping Processes

Time : 3Hrs.

M.M. : 60

SECTION-A

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

- Q.1 Bagasse belongs to which of the following type?
- a) Agro residue fiber b) Wood fiber
c) Seed fiber d) None of these
- Q.2 Liquor exiting the digester with the cooked chips is called?
- a) White liquor b) Black liquor
c) Green liquor d) Red liquor
- Q.3 The process through which the pulp is separated from large shives, knots etc. is known as?
- a) Screening b) Pickling
c) Cutting d) Shredding
- Q.4 Which of the following process is used to treat all types of woods for pulping process?
- a) Mechanical pulping
b) Chemical pulping

c) Semi chemical pulping

d) None of these

Q.5 Which of the following is not a constituent of wood based raw material?

a) Carbon b) Oxygen

c) Sulphur d) Hydrogen

Q.6 Which of the following terms depicts the sum of Na chemicals that will produce OH during kraft pulping?

a) Total alkali b) Active alkali

c) Total titrable alkali d) Effective alkali

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Write the name of any one leaf fiber used for making paper?

Q.8 What is the baggase?

Q.9 Write the name of one physical debarking method?

Q.10 Define the pulping?

Q.11 What is chip screening?

Q.12 Write the name of any one macromolecular substance is present in the cell wall of the hardwood?

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Describe the concept of chemical pulping in brief?

Q.14 What are extractives? Discuss their importance?

Q.15 Describe the rotary digester in brief?

Q.16 What is difference between wood pulp and non-wood pulp?

Q.17 What is pulp consistency? Discuss its importance?

Q.18 Discuss the different factors affecting the selection of raw material for pulping?

Q.19 What is the difference between active alkali and effective alkali?

Q.20 What is lignin? How it affects the quality of pulp?

Q.21 Define and discuss secondary fiber pulping in brief?

Q.22 Explain the significance and occurrence of hemicelluloses in brief?

SECTION-D

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

Q.23 Describe the different steps involved during the raw material processing in a pulp mill with the help of a neat block diagram?