

- Q.30 List any 5 parameters affecting stone ground wood pulping.
- Q.31 Why patch ration is maintained in the digester?
- Q.32 What are the main sources and availability of raw materials in the context of Indian paper industry?
- Q.33 Describe any one type of chip screen with neat and clean diagram.
- Q.34 What is objective of bleaching?
- Q.35 Draw a neat sketch of morphological structure of fiber.

SECTION-D

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

- Q.36 Describe the method of preparation of urea fertilizer with help of neat flow diagram.
- Q.37 Explain cooking cycle with different stages involved in it.
- Q.38 Write short notes on the following:
- caustisizing efficiency
 - secondary fiber pulping

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**3rd Sem / Chemical Engg (P&P)
Subject:- Pulping Processes**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Which pulp is darker in color?
- Soda
 - Sulfate
 - Sulfite
 - None
- Q.2 Which layer of wood contains fiber?
- Primary
 - Lumen
 - Bark
 - None
- Q.3 Which type of tree is called deciduous?
- Lightwood
 - Softwood
 - Hardwood
 - Heavywood
- Q.4 _____ is sugarcane residue.
- Kenaf
 - Bagasse
 - Grasses
 - Canes
- Q.5 Name the chemical used for soda process.

- a) NaCl
- b) NaOH
- c) Na₂S
- d) Na₂SO₄

Q.6 Which type of barker is ideal for small mill?

- a) Drum
- b) Disc
- c) Aviato
- d) Rosserhead

Q.7 Select pressure of digester during pulping .

- a) 4 kg/cm²
- b) 5 kg / cm²
- c) 6 kg / cm²
- d) 9 kg / cm

Q.8 Expand AA.

- a) Active alkali
- b) Active action
- c) Acetic acid
- d) Active acid

Q.9 Select type of chipper.

- a) Drum
- b) Disc
- c) Norman
- d) All

Q.10 Select any one type of debarker.

- a) Drum
- b) Carthage
- c) Naxman
- d) Lather

SECTION-B

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

Q.11 State the end uses of semi chemical pulp.

Q.12 What is chipping?

Q.13 Name any one fruit fiber.

Q.14 Expand TTA.

Q.15 Define permagnate number.

Q.16 What is black liquor?

Q.17 What is percentage of cellulose in bagasse?

Q.18 Is eucalyptus HW or SW?

Q.19 What is NaOH + Na₂S?

Q.20 Name general parts of tree.

SECTION-C

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

Q.21 What is blow heat recovery.

Q.22 Mention advantages of using secondary fiber pulping.

Q.23 Mention any 5 points for end uses of mechanical pulp.

Q.24 Explain the making of paper.

Q.25 Draw flow diagram of TMP process.

Q.26 Differentiate kraft pulping and sulphite pulping.

Q.27 Define ozone bleaching.

Q.28 Define white liquor.

Q.29 Write definition of AA and TTA.