

- Q.28 Explain the term available chlorine.
- Q.29 Write any two use of sulphamic acid in bleaching.
- Q.30 Explain the function of rotameter.
- Q.31 What is post color number?
- Q.32 Define brightness.
- Q.33 List any four reductive chemical.
- Q.34 What are the various conditions maintained in alkali tower?
- Q.35 Explain the concept of ECF.

SECTION-D

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

- Q.36 Explain in detail multistage bleaching process with suitable diagram.
- Q.37 Write the process of making calcium hypochlorite
- Q.38 Describe importance of brightness reversion of bleach pulp and post color number.

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3rd Sem / Chem. P&P Subject:- Pulp Bleaching

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 What is color of pulp after bleaching?
a) White b) Pink
c) Blue d) Black
- Q.2 What is unit of brightness?
a) Kg b) °C
c) %age d) None
- Q.3 Is chlorine lighter than air?
a) Yes b) No
- Q.4 Choose oxidative bleaching chemical
a) H₂O₂ b) O₃
c) NaBO₃ d) All
- Q.5 What is the consistency in hypo tower?
a) 15-20 b) 05-08

- c) 01-05 d) 10-12

Q.6 What is made when lignin reacts with NaOH?

- a) $\text{NaOH} + \text{H}_2\text{O}$ b) Soda lignin
c) $\text{Na} + \text{H}_2\text{O}$ d) Hydro lignin

Q.7 A low copper no. indicates that the cellulose is _____.
_____.

- a) Degraded b) No effect
c) Not degraded d) None

Q.8 Post color no. of pulp _____ with age of paper.

- a) Increases b) Decreases
c) No effect d) None

Q.9 Apparatus for measuring brightness

- a) Photometer b) Micrometer
c) Radiometer d) None

Q.10 Degree of delignification is measured by _____.

- a) Kappa No. b) KMnO_4 no.
c) Both A & B d) None

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

Q.11 Write any one objective of Bleaching.

Q.12 Name any one bleaching process.

Q.13 In which stage of bleaching NaOH is used?

Q.14 Expand the term TCF.

Q.15 What is the purpose of calcium hypochlorite?

Q.16 Why agitator is used?

Q.17 Write the formula of bleaching powder.

Q.18 What is the formula of consistency?

Q.19 What is pH range in hypo tower of bleaching section?

Q.20 What is purpose of using chlorine in chlorine tower?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

Q.21 Explain the principle of bleaching.

Q.22 How can bleachability be measured?

Q.23 Explain generation process of chlorine dioxide.

Q.24 What are the variables affecting chlorination?

Q.25 Define Kappa no. of pulp.

Q.26 Write five advantages of using multistage bleaching process over single stage bleaching process.

Q.27 Mention any five uses of washer in bleaching section.