

- 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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Roll No.

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) H_2O_2 b) O_3
- c) $NaBO_3$ 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) NaOH+H₂O b) Soda lignin
- c) Na+H₂O 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) KMno₄ no.
- c) Both A & B d) None

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=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. (12x5=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.