

- Q.28 Define copper.
- Q.29 What is soda loss? Why it is to be reduced?
- Q.30 What is the importance of dilution of pulp?
- Q.31 Explain the alkaline extraction used in the bleaching process?
- Q.32 What are the various conditions maintained in the bleached tower?
- Q.33 What is total chlorine free bleaching? Discuss its importance?
- Q.34 Explain the function of Rota meter.
- Q.35 Write any two uses of sulphamic acid in bleaching.

SECTION-D

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

- Q.36 Describe the manufacturing process of chlorine dioxide in industry with a neat diagram.
- Q.37 What are the various process for measuring bleachability. Explain in detail.
- Q.38 Write short note on:-
- Post color number
 - Chlorine mixer

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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 Choose the formula of sulphamic acid.
- H_3NSO_3
 - H_2SO_4
 - HNO_3
 - $\text{H}_4\text{N}_2\text{SO}_2$
- Q.2 Choose condition maintained in alkali tower
- Pulp weight
 - Temperature
 - Pulp flow
 - None
- Q.3 What is the pH range in hypo tower of bleaching section
- About 5
 - About 11
 - About 25
 - About 20
- Q.4 Expand PH
- Potential hydrogen
 - Power hydrogen
 - Pure hydrogen
 - None

Q.5 What is the purpose of Agitator?

- a) Stirring
- b) Cutting
- c) Bleaching
- d) Slushing

Q.6 What is the chemical formula of hydrogen peroxide?

- a) HO₂
- b) H₂O
- c) HO
- d) H₂O₂

Q.7 What is color of pulp after bleaching?

- a) White
- b) Pink
- c) Blue
- d) Black

Q.8 Choose the reductive chemical

- a) Co₂
- b) Ca
- c) H₂O
- d) Cl

Q.9 Which tower is known as upward flow tower?

- a) Hypo tower
- b) Alkali tower
- c) Cl₂ tower
- d) None

Q.10 Choose the unit of consistency

- a) kg
- b) C
- c) %age
- d) None

SECTION-B

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

Q.11 In which stage of bleaching NaOH is used?

Q.12 Why agitator is used?

Q.13 Write the formula of bleaching powder.

Q.14 What is the purpose of calcium hypochlorite?

Q.15 What is the purpose of using chlorine in chlorine tower?

Q.16 Give name of two chlorine mixers.

Q.17 Expand CEH bleaching sequence.

Q.18 Name one reducing agent.

Q.19 Write optimum PH in chlorination bleaching scope.

Q.20 Name any one oxidative bleaching chemical.

SECTION-C

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

Q.21 What is the effect of PH on chlorination stage?

Q.22 What are the various variables used in bleaching process?

Q.23 Define Ozone bleaching.

Q.24 Write short note on brightness reversion of bleached pulp.

Q.25 Differentiate peroxide and oxygen bleaching.

Q.26 How chlorine dioxide is prepared.

Q.27 What is significance of Kmno4 number?