

- Q.30 Describe the importance of hemicelluloses in beating and refining of paper.
 - Q.31 Explain the use of CMC in paper industry.
 - Q.32 Describe the method for measuring the specific surface of fiber.
 - Q.33 Mention importances of stock preparation.
 - Q.34 What is the best suited range of temperature for the case of beating and refining?
 - Q.35 Describe the working of PFI mill with help of diagram

SECTION-D

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

- Q.36 List various types of chest and agitators used in stock preparation.

Q.37 Explain the theory of beating and refining. What are the effects of beating and refining on fiber structure.

Q.38 List various types of laboratory beating equipments. Explain any one with neat and clean diagram.

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**4th Sem / P & P
Subject:- Stock Preparation - I**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Choose the purpose of beating

 - a) Folding
 - b) Swell fiber
 - c) Bleaching
 - d) None

Q.2 Choose the mill beater

 - a) Poller
 - b) Roller
 - c) Hollander
 - d) None

Q.3 Choose the type of dye used in paper making.

 - a) Sulpher
 - b) Cationic
 - c) Acidic
 - d) All of the above

Q.4 What is the use of mixing cloth.

 - a) Expansion
 - b) Compression
 - c) Beating
 - d) Mixing pulp & fillers

Q.5 Beating helps in _____ of fiber.

 - a) Folding
 - b) Softening
 - c) Bleaching
 - d) None

Q.6 On which principal centri cleaners are based?

- a) Centrifugal action
- b) Bleaching
- c) Beating
- d) Compression

Q.7 Choose the types of refiners used in refining.

- a) Cuboidal
- b) Double Disc
- c) Circular
- d) Triangular

Q.8 Expand SR.

- a) Standard reaction
- b) Schopper Riegler
- c) Sulpher reaction
- d) None

Q.9 Clarified white water is used for _____ for stock preparation.

- a) Bonding
- b) Mixing
- c) Showers
- d) None

Q.10 Expand OD

- a) Over Dry
- b) Over day
- c) Oven Dry
- d) None

SECTION-B

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

Q.11 What is the function of save all.

Q.12 Write the use of PFI mill.

Q.13 What is the mesh size of OSR tester?

Q.14 Write the working principle of thickener.

Q.15 Name any 2 types of thickeners.

Q.16 Write the formula of cellulose fiber.

Q.17 Name any one type of retention chemical.

Q.18 Expand CSF.

Q.19 Why calcium carbonate is used in stock preparation?

Q.20 What is the free drainage area of a perforated plate of CSF tester?

SECTION-C

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

Q.21 Write any 5 effects of pH in beating and refining of pulp slurry.

Q.22 Describe the significance of pulp blending for manufacturing of paper.

Q.23 Draw a neat diagram of wide angle refiner.

Q.24 Mention the methods for measuring fiber length.

Q.25 What is de-zurik?

Q.26 Name the chemicals used to control the water absorbency in the paper.

Q.27 Discuss the role of potcher in stock preparation.

Q.28 Describe the method for the measurement of CSF of a beaten stock.

Q.29 What do you mean by stock proportioning system used in S.P. Section.