

- Q.30 What is stock shade matching? How the dyes pigments and other coloring materials are added to this?

Q.31 What do you understand by direct nationality of paper? Explain.

Q.32 Classify wet-end chemical additives.

Q.33 Draw a neat sketch of hydropulper.

Q.34 Mention the methods to improve optical properties of paper.

Q.35 Write a note on measurement of wettability.

SECTION-D

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

- Q.36 What is the significance of loading & filler materials used in paper? Discuss their advantages & disadvantages in detail.

Q.37 Write notes on the following: (a) Optical whitener used in paper making (b) Aging of paper.

Q.38 Explain the working of thickeners with help of neat diagram.

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**5th Sem / Branch : P & P
Sub.: Stock Preparation-II**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Write the formula of Cellulose

a) $(C_6H_{10}O_5)_n$ b) $C_6H_{10}O_8$
c) $C_6H_5O_3$ d) CH_3COOH

Q.2 Choose the property of $CaCO_3$

a) Toxic b) None Toxic
c) Poison d) None

Q.3 Choose the chemical used for making cigarette paper

a) TiO_2 b) Soap Stone
c) Al_2O_3 d) $CaCO_3$

Q.4 Choose any sizing material used in paper industry

a) $CaCo_3$ b) Alum
c) TiO_2 d) None

Q.5 Choose the different symbol of dark grade roisin

a) BB b) BP
c) A & B d) None

- Q.6 Choose the chemical used as alum
 a) HCl b) Al₂O₃
 c) FeCl₂ d) All of above
- Q.7 What is the relative index of burnt gypsum (peral filler)
 a) 1.42-3.3 b) 1.57-1.61
 c) 2.3-3.2 d) 3.5-4.6
- Q.8 Choose the consistency of PFI mill
 a) 8% b) 7%
 c) 6% d) 10%
- Q.9 Choose chemical formula of abietic acid
 a) C₁₉H₂₉COOH b) C₁₆O₁₇COOH
 c) CH₃COOH d) C₁₈H₁₉COOH
- Q.10 Expand pH
 a) Potential hydro b) Potential hygro
 c) Potential hydrogen d) None

SECTION-B

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

- Q.11 Give a name of any one retention aid chemical.
- Q.12 Write name of any filler used in stock preparation.
- Q.13 What is the formula of soap stone?
- Q.14 Name the test by which rosen content can be checked from rosen size solution.

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- Q.15 Write the different symbols of transparent grade rosin.
- Q.16 What is the significance of cob test?
- Q.17 Name the filler that provides maximum opacity in paper sheet.
- Q.18 Which meter generally helps to measure the concentration of alum?
- Q.19 Which grade rosins are used for dark colored paper?
- Q.20 Which chemical is used to increase the brightness of paper?

SECTION-C

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

- Q.21 List types of loading materials.
- Q.22 What is the function of retention aids?
- Q.23 Draw a neat sketch of any one refiner.
- Q.24 Define consistency.
- Q.25 What is additive property of natural light?
- Q.26 Write a note on cold process for preparation of resin.
- Q.27 Write a note on chemistry of wet strength chemicals.
- Q.28 Write a note on maintenance of machinery.
- Q.29 Differentiate between floatation type and filtration type fiber recovery system. Explain with example.

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