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220651

Roll No.

5th Sem.

Branch : Chemical (Pulp & Paper)

Subject : Paper Properties

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

- Q.1 In which direction tearing strength of paper is more?
- a) Wire direction b) Felt direction
- c) Machine direction d) Cross direction
- Q.2 Which property (in bag paper) is important to be filled by valve connection?
- a) Basis weight b) Thickness
- c) Density d) Porosity
- Q.3 How much time is required for determination of moisture content of paper?
- a) 4 hrs b) 3 hrs
- c) 2 hrs d) 1 hr
- Q.4 Which type of paper should have low ash content?
- a) Writing paper b) Printing paper
- c) Condenser paper d) Wax paper

Q.5 Which property of paper is affected by orientation of fiber in paper machine?

- a) Basis weight of paper
- b) Density of paper
- c) Tearing strength of paper
- d) All of the above

Q.6 Ratio of change in dimensions to the original dimensions is called _____?

- a) Stress b) Strain
- c) Force d) Thickness of paper

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 What is the effect of moisture content on basis weight of paper?

Q.8 In which type of paper opacity is important?

Q.9 Which coating of paper on machine or off machine is expansive?

Q.10 Expand the term BSF.

Q.11 What is the unit of density?

Q.12 Define machine direction.

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 What are the sources of ash in paper?

Q.14 How basis weight of paper is controlled on the paper machine?

Q.15 Why orientation of fiber in paper machine is important?

Q.16 Briefly describe the defect of paper.

Q.17 Define write side & felt side of paper.

Q.18 Where & Why folding endurance of paper is important?

Q.19 Draw neat sketch of quadrant type instrument for measuring basis weight of paper.

Q.20 Write a note on breaking length.

Q.21 Write a note on tissue grade paper.

Q.22 List various type of coating process.

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 List various optical properties of paper. Explain each in detail.

Q.24 Define porosity of paper. How porosity is measured? Explain with neat diagram.

Q.25 Write short note on any two of the following.

- a) Sheet strength b) Chemical properties
- c) TEA d) Specialty papers