

- Q.33 Write any two application of Wax Paper.  
 Q.34 Give any two application of specialty paper.  
 Q.35 What is color reversion?

### SECTION-D

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

- Q.36 Explain in detail the density of paper. What are the relation of density with other sheet properties.  
 Q.37 List various coaters used in Industries. Explain trailing blade coater with neat sketch.  
 Q.38 Write short notes on any two of the following  
 a) Photographic paper  
 b) Electrical properties of paper  
 c) Color reversion  
 d) Dimensional stability

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**6th Sem / Branch : Chemical Engg. (P & P)**

**Sub.: Paper Properties & Conversion**

Time : 3Hrs.

M.M. : 100

### SECTION-A

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

- Q.1 In which direction maximum orientation of fiber (length wise) takes place?  
 a) Machine direction b) Cross direction  
 c) Wire side d) Felt side  
 Q.2 Generally which side of paper is smooth?  
 a) Wire side b) Felt side  
 c) Machine direction d) Cross direction  
 Q.3 What is the size of sample for measuring basis wt. of paper?  
 a) 20x25cm<sup>2</sup> b) 25x25cm<sup>2</sup>  
 c) 40x25cm<sup>2</sup> d) None  
 Q.4 How many types of pores are present in the paper?  
 a) One b) Two  
 c) Three d) Four  
 Q.5 Brightness is defined as the % age reflectance of blue light only at a wavelength of \_\_\_\_\_?  
 a) 457 nm b) 557 nm  
 c) 657 nm d) 757 nm

- Q.6 What is called the reciprocal of amount of light transmission through paper?  
 a) Brightness                      b) Opacity  
 c) Gloss                                d) None
- Q.7 How much time is required for determine the moisture content of paper in oven?  
 a) 30 min                                b) 60 min  
 c) 90 min                                d) 120 min
- Q.8 Choose any one hygroscopic agent in the paper  
 a) PVC                                    b) Polystyrene  
 c) Polyethylene                      d) Corn syrup
- Q.9 Which of the following is a good insulator  
 a) Tennin                                b) Lignin  
 c) Hernicellulose                      d) Cellulose
- Q.10 In which year the 1st paper coated on two sides was made?  
 a) 1675                                    b) 1775  
 c) 1875                                    d) 1975

### SECTION-B

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

- Q.11 Expand the term A.D.
- Q.12 Name the property of paper measured by Mullen tester.
- Q.13 What is the unit of breaking length?

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- Q.14 Is filler increases the density of paper?
- Q.15 Write the name of property which is greater in cross direction?
- Q.16 List any two physical property of paper.
- Q.17 Expand PH.
- Q.18 Where Caco 3 is used?
- Q.19 Mention any one parameter which effect the thickness of paper?
- Q.20 Which coating is better on machine & off machine?

### SECTION-C

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

- Q.21 Define machine direction & cross direction of paper.
- Q.22 Draw neat sketch of quadrant scale used for measuring the basic weight of paper.
- Q.23 List various electrical properties of paper.
- Q.24 Write a note on breaking length of paper.
- Q.25 What is brightness?
- Q.26 Write the significance of moisture content.
- Q.27 Mention any five effect of beating on sheet strength.
- Q.28 What is the relation of density and porosity of paper?
- Q.29 Describe on machine and off machine coating.
- Q.30 Explain stress strain curve of paper.
- Q.31 How coating mixture is prepared?
- Q.32 Define the term PH.

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