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220652

Roll No. ....

**5th Sem.**

**Branch : Chemical (Pulp & Paper)**

**Subject : Stock Preparation-II**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

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

- Q.1 Write the formula of abietic acid
- a)  $C_{19}H_{29}COOH$                       b)  $C_{16}O_{17}COOH$   
c)  $CH_3COOH$                          d)  $C_{18}H_{19}COOH$
- Q.2 Choose the chemical used for making cigarette paper
- a)  $TiO_2$                                   b) Soap stone  
c)  $Al_2O_3$                                  d)  $CaCO_3$
- Q.3 What is the consistency of valley beater?
- a) 1.57%                                  b) 2.5%  
c) 3%                                        d) 6%
- Q.4 Expand PH
- a) Potential hydrogen                b) Power hydrogen  
c) Pure hydrogen                      d) None
- Q.5 How much OD pulp are required for valley beater?
- a) 145gm                                  b) 348gm  
c) 267gm                                  d) 363gm

- Q.6 Choose the Chemical used as alum  
a) HCl                                      b) FeCl<sub>2</sub>  
c) Al<sub>2</sub>O<sub>3</sub>                                      d) All of the above

### Section-B

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

- Q.7 Expand the term CMC.  
Q.8 Name any two sizing materials?  
Q.9 Which method is used to check a mixed dye?  
Q.10 Name the two forms of Tio<sub>2</sub> filler.  
Q.11 Expand AKD.  
Q.12 What is the function of save-all?

### Section-C

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

- Q.13 What is the function of retention aids?  
Q.14 Explain the qualities of filler in context of good quality of paper production.  
Q.15 Differentiate internal & surface sizing.  
Q.16 Find out the consistency of 150m<sup>3</sup> pulp slurry containing 10kg OD pulp?  
Q.17 Draw a neat sketch of any one type os stock chest agitator.

- Q.18 Describe any one type of beater additives.  
Q.19 Explain any one method of preparing resin size.  
Q.20 What do you understand by two sidedness of paper.  
Q.21 How is alum solution prepared for a knows concentration?  
Q.22 Briefly explain about fiber recovery system.

### Section-D

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

- Q.23 A chest is having 100m<sup>3</sup> pulp slurry of 3% consistency. How much water will be required to make its consistency 0.5%?  
Q.24 Classify the acid, direct dyes in context to use for chemical pulps, Kraft pulp and ground wood pulp.  
Q.25 Discuss the role of starch, guar gum, CMC additives (In detail).