



- Q.5 What is value of oxidizing equivalent of  $O_2$  in OXE  $kg^{-1}$ ?
- a) 75                                      b) 100  
c) 125                                      d) 150
- Q.6 What is brightness level of fully bleached sulfite (dissolving) pulps?
- a) 85% ISO                                b) 90% ISO  
c) 95% ISO                                d) 100% ISO
- Q.7 The lignin content of unbleached pulp, expressed by which number?
- a) Reynold number                      b) Octane number  
c) Cetane number                        d) Kappa number
- Q.8 Which pH favors the generation of hypochlorite ions in hypochlorite bleaching?
- a)  $pH < 3$                                 b)  $pH = 5$   
c)  $pH = 7$                                 d)  $pH > 9$
- Q.9 What is chemical formula of chlorine dioxide?
- a)  $ClO_2$                                       b)  $ClO$   
c)  $Cl_2O$                                       d)  $Cl_2O_2$
- Q.10 The homogeneity of the mixture composed of pulp and bleaching agent is achieved by?
- a) Mixing                                    b) Grinding  
c) Loading                                   d) Feeding

## SECTION-B

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

- Q.11 What is full form of ECF in pulp bleaching?
- Q.12 Write name of one bleaching chemical which react as electrophilic agent ?
- Q.13 What is main disadvantage of using hypochlorite as bleaching agent?
- Q.14 What is purpose of washing step in pulp bleaching?
- Q.15 What is the main objective of first stages in the multistage bleaching?
- Q.16 Define the bleaching?
- Q.17 Write name of major equipments used in the basic set-up of a bleaching stage?
- Q.18 What is full form of AOX in pulp bleaching?
- Q.19 Define the delignification?
- Q.20 What is brightening stage?

## SECTION-C

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

- Q.21 Discuss the different factors affecting the bleachability of pulp in brief?
- Q.22 How brightness of pulp is measured, discuss in brief?
- Q.23 Explain the concept of prebleach in brief?
- Q.24 Discuss the basic setup for bleaching stage in brief?
- Q.25 Describe the agitators used for bleaching of pulp?