

M.Tech. First Year First Semester (Chemical Engineering) (CBS)
13007 : Elective-I : Pulp and Paper Technology : 1 CE 5

P. Pages : 1

Time : Three Hours



AW - 3449Add

Max. Marks : 80

- Notes :
1. Answer **any six** questions.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Diagrams and chemical equations should be given wherever necessary.
 5. Illustrate your answer necessary with the help of neat sketches.
 6. Discuss the reaction, mechanism wherever necessary.
 7. Use of pen Blue/Black ink/refill only for writing the answer book.

1. List out various raw material for commercial scale production of paper. Discuss the chemical composition of major raw material. 14
2. How cellulose & lignin are separated by chemical process. Explain alkaline sulfate process. 13
3. Why paper is preferred over the plastic as packaging material. Write chemical equations. 13
4. Discuss optimum use of water in pulp washing for creation of black liquor for recovery. 13
5. Discuss the significance of 'H' factor in chemical pulping process. 14
6. Discuss the C-E-H-H bleaching process of pulp. 13
7. How staff is converted to furnished by mechanical and chemical process? 13
8. With neat flow diagram explain the working of fourdrinier paper machine. 13
9. Discuss the environmental aspect of paper industry. 13
10. "Recycling and Reuses of paper" is the need for economy and energy. Comment on it. 13
