



B.E / B Tech (Full -Time) DEGREE END SEMESTER EXAMINATIONS, Nov/Dec. 2011  
PRINTING TECHNOLOGY BRANCH  
FIFTH SEMESTER – (REGULATIONS 2004)  
**PT 371 – PAPER AND BOARD**

Time: 3 hrs

Max Marks: 100

Instructions:

- 1. Answer all questions.
- 2. All questions carry equal marks.

**Part – A (10 x 2 = 20 Marks)**

- 1. What is hard and soft woods? Give two examples in each case.
- 2. What is TMP? Write the properties & applications of paper produced by TMP?
- 3. How color papers are produced?
- 4. Write the functions of Head boxes in papermaking machines.
- 5. How recycled papers are made?
- 6. Write the common paper sizes followed in the industries generally.
- 7. Ash content is important for what type of paper? Why?
- 8. What is bulk of a paper?
- 9. What is the difference between show through and strike through?
- 10. What is the paper problem of mottle?

**Part – B (5 x 16 = 80 Marks)**

- 11. Briefly discuss the following paper related problems their causes and remedy during printing. (i) slurring and doubling (ii) Chalking (iii) blistering (iv) web break (4marks each)
- 12. (a) (i) Name the types of pulping methods in papermaking (4marks)  
(ii) Discuss the types of chemical pulping methods in papermaking with suitable flow chart (12marks)  
(or)  
(b) Discuss the beating and types of refining process in papermaking.
- 13. (a) Explain with suitable diagram the parts and functions of fourdrinier machine in detail.  
(or)  
(b) Explain with suitable diagram the types of calendaring process in detail.
- 14. (a) Discuss with suitable diagram how papers are coated (any four methods)  
(or)  
(b) Discuss the requirements of paper properties needed for different printing Process
- 15. (a) Briefly discuss the following paper properties in detail with respect to printing.  
(1) Dimensional stability and (2) Moisture Content (8marks each)  
(or)  
(b) Discuss with suitable diagram how the following paper properties are measured?. (i) Burst strength (8marks) (ii) Gloss (8marks)