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B.E / B Tech (Full- Time) DEGREE END SEMESTER EXAMINATIONS, Jan/April.2012  
 PRINTING TECHNOLOGY BRANCH  
 SEVENTH SEMESTER – (REGULATIONS 2004)  
**PT 471 – PACKAGING MATERIALS**

Time: 3 hrs

Max Marks:100

Instructions:

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

**Part – A (10 × 2 = 20 Marks)**

1. What are the advantages of flexible packages? 4points
2. How cast films are made?
3. What are the steps involved during the fabrication of metal cans?
4. What are the applications of wooden pallets? 4points
5. What is the application of multiwall papers? 4points
6. What are the advantages of plastic drums when compared with other types?
7. What are the properties of laminating papers?
8. How glasses used in packaging are decorated?
9. What is haze and clarity?
10. What is importance of corrosion test of metals used in packaging?

**Part – B (5 × 16 = 80 Marks)**

11. Explain the preparation and properties and applications of the following materials in packaging.  
 (i) Poly Ethylene (2) polypropylene (3) polyamide
- 12.(a) Briefly discuss the kinds of folding cartons and their applications in packaging in detail.  
 (or)  
 (b) Explain the type of surface treatment used for polymeric surface in detail.
13. (a). Discuss in detail how glasses are manufactured explain any one method?  
 (or)  
 (b) (i) What is metallization? (4marks)  
 (ii) Explain the methods of metallization in detail.(12marks)
- 14.(a) Discuss the types of labels and materials used for manufacturing labels and its properties in detail.  
 (or)  
 (b) Explain how collapsible tubes are made and write their applications?
- 15.(a) Explain the following tests in detail with respect to packaging materials  
 (i) Tensile test (ii) Impact test (8 marks each)  
 (or)  
 (b) (i)Write the importance of barrier properties for packaging materials.(8marks)  
 (ii)Explain how gas barrier properties are measured?(8marks)