

(3 Hours)

Marks : 80

- NB:** 1. Question No. 1 is compulsory.
2. Attempt **any three** questions from remaining **five** questions.
3. Indicate **question no.** properly.

1. Write Short note on (any four)
 - a) Wooden Dunnages 5
 - b) Consumer packaging vs industrial packaging 5
 - c) Intermediate bulk containers 5
 - d) Hardwood vs Softwood 5
 - e) Significance of wood seasoning 5
 2.
 - a) Develop a package for 1-litre HCL acid on packaging considerations for a chemical product 10
 - b) In industrial packaging emphasis is more on protection of the product rather than the attractiveness. Justify with reasons 5
 - c) Explain various tests that are done for testing of industrial products packaging. 5
 3.
 - a) State five differences in package design approach for any two light engineering products. 10
 - b) What is the purpose of Cushioning? Explain the selection criteria for cushioning material 10
 4.
 - a) State and draw two classes of box pallets and explain the three types of box pallets with their designated symbols 10
 - b) Describe product and machine related attributes for the soap & detergent package 10
 5.
 - a) Explain any five types of wood defects 10
 - b) With suitable diagram explain Stringer and Block pallets 10
 6.
 - a) Describe in detail packaging process of engine oil and elaborate package testing of engine oil. 10
 - b) Give the importance of density & moisture in wood. 10
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