



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Technology) 2022 & Previous Admissions**  
**VI Semester Final Examination – June 2025**

Pafe.3232

**Food Packaging Technology and Equipment (2+1)**

**Marks: 50**  
**Time: 2 hours**

**I Fill in the blanks (10x1=10)**

1. Aluminum packaging is widely used due to its lightweight and ..... resistance.
2. Tin cans are typically coated with a layer of ..... to prevent corrosion.
3. .... is a common plastic used for water bottles and soft drink packaging.
4. .... involves the take up of molecules from food products.
5. A time-temperature indicator (TTI) is a type of ..... packaging component.

**State True or False**

6. The Indian Institute of Packaging (IIP) is headquartered in New Delhi.
7. Thermoplastics can be melted and reshaped repeatedly.
8. Hydrogen peroxide is used for surface decontamination of packaging material.
9. Gravure printing involves engraving the image onto a metal cylinder.
10. MDIs are NOT Microwave Doneness Indicators.

**II Write short notes on ANY FIVE of the following (5x2=10)**

1. What is Corrugated Fiber Borad (CFB)?
2. What are the functions of packaging the food materials?
3. Suggest packaging method and packaging material for fresh fruit and vegetables.
4. What is Blow and Blow method?
5. What is drop test and its utility?
6. Write about permeability of packaging material with its unit.
7. Suggest packaging method and packaging material for foodgrains.

**III Answer ANY FIVE of the following (5x4=20)**

1. Classify type of packaging with suitable examples.
2. Write about the agency in India for compliance of safety and legislative aspect of food packaging.
3. Write about the methods to improve barrier properties of packaging materials.
4. What is Shrink packaging and its utility in food industry?
5. What are the different functional tests conducted on packages?
6. What is Vacuum packaging and methods of vacuum packaging?
7. Write about the active packaging system along with mechanism.

**IV Write an essay on ANY ONE of the following (1x10=10)**

1. Explain the working principle of a Form Fill Seal (FFS) Machine with a neatly labeled diagram. Discuss the types of FFS machines, their technical specifications, and elaborate on their utility in the food industry.
2. Define aseptic packaging. Explain its working principle and components. Discuss the materials used, steps involved in the aseptic packaging process, and highlight its advantages and limitations. Also, elaborate on its applications and significance in the food industry.

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