

## ASSIGNMENT SET - III

**Department of Nutrition**

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**M.VOC(FTNM):**

**Semester-II**

**Paper Code:FTNM23**

**Answer all the questions**

### **UNIT– 1:**

1. Write down types of Packaging Materials.

### **Unit – 2:**

Identify challenges associated with choosing adhesives for food packaging.

1. Discuss environmental and safety considerations when selecting adhesives for food contact materials.
2. Importance of Coding in Food Packaging:

### **Unit – 3:**

1. Common Materials Used for Protective Packaging
2. Methods for Packaging Light-Sensitive Foods
3. Types of Active Packaging Technologies
4. Preventing Microbial Contamination in Canned Foods

### **Unit – 4:**

1. Discuss the significance of packaging in preserving the freshness and quality of dairy products.

### **Unit – 5:**

1. Protective Packaging Solutions for Fats and Oils
2. Explain how modified atmosphere packaging is used for meat and poultry.

### **Unit – 6:**

1. Discuss the role of gases like nitrogen, carbon dioxide, and oxygen in MAP.
2. Identify products commonly packaged using shrink packaging
3. Define Controlled Atmosphere Packaging (CAP) and its objectives.

### **Unit – 7:**

1. Define retort pouch technology and its purpose in food packaging.
2. Define microwavable packaging and its characteristics
3. Define biodegradable packaging and the principles behind its degradation.
4. Define edible packages and their purpose in sustainable packaging solutions.

### **Unit – 8:**

1. Identify common materials used in industrial packaging.
2. Identify the benefits of palletizing in the transportation and storage of goods.
3. Define containerizing and discuss its advantages in industrial packaging.

### **Unit – 9:**

1. List three safety features that are commonly considered when designing food packaging.
2. b. Explain how these safety features contribute to consumer well-being.
3. Discuss how these factors can be managed to minimize the risk of contamination

### **Unit –10:**

1. Explain the purpose and key objectives of intelligent packaging systems
2. Name three innovative technologies used in active packaging.
3. Discuss effective communication strategies to educate consumers about novel packaging.

### **Unit –11:**

1. Provide one example of a food product where oxygen scavenging technology is commonly used.
2. Give an example of a food product that benefits from odor and flavor absorbers in its packaging.
3. How do preservative releasers contribute to extending the shelf life of packaged foods?

4. Provide an example of a food product where antimicrobial packaging is particularly beneficial.
5. Why is proper selection of antimicrobial agents crucial for the success of antimicrobial packaging?

### **Unit –12:**

1. Name one advantage of using NMBP in food packaging applications.
2. Name two types of Inherently Bioactive Synthetic Polymers and their applications.
3. Provide an example of a bioactive compound that can be immobilized in a polymer for food packaging.

### **Unit –13:**

1. Explain how the effectiveness of TTIs is measured in terms of accuracy.
2. Explain the factors that influence the development of Time-Temperature Indicators.
3. Discuss how TTIs contribute to reducing food waste and enhancing food quality.

### **Unit –14:**

1. List three factors that can affect the absorption of flavors by packaging materials.
2. Name two methods commonly used to evaluate the shelf life of packaged foods.
3. Explain how temperature and humidity can influence flavor absorption in packaged foods.

### **Unit –15:**

1. Name two gases that commonly exhibit permeability through polymer packaging materials.
2. Define Modified Atmosphere Packaging (MAP) and its role in food preservation.

### **Unit –16:**

1. Name two key advances in aseptic packaging technology in recent years.
2. Describe two different types of aseptic packaging systems and their applications.
3. Explain how packaging is adapted for use with high-pressure processing techniques.

### **Unit –17:**

1. Describe the characteristics and advantages of PET as a packaging material.
2. Define Tetra Pak and discuss its application in food packaging.
3. Define a lined cartoning system and explain its advantages in packaging.

### **Unit –18:**

1. Explain how regulations and laws contribute to shaping the packaging industry.

2. Discuss the challenges associated with the disposal of non-recyclable packaging materials.
3. Explain how packaging specifications contribute to the standardization of packaging processes.

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