

## MBA in AVCM Sem.-3 Examination

IIS-18

## Food Quality &amp; Assurance

Time : 2-30 Hours]

November-2024

[Max. Marks : 70]

**Instructions:**

- **Question no 1 to 4 carry 14 marks each**
- **Question no 5 carries 14 marks (each question of 2 marks). Out of the 12 questions, attempt any seven.**

**Question 1**

i. What is Food Processing? Describe the significance and problems in food processing industries.

**OR**

i. Explain the key government policies and support programs that promote growth in the food processing sector

**Question 2**

i. What do you mean by food preservation? Describe the principles of food preservation in detail.

**OR**

i. Enlist the different Regulations under the Food Safety and Standards Act, 2006 and discuss Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011.

**Question 3**

i. Discuss the classification of packaging materials used in the food industry and explain the key objectives of packaging materials in preserving food quality, ensuring safety, and enhancing product appeal.

**OR**

i. Explain the primary objectives of ISO 9000:2000 standard in food processing, describe its structure and discuss the eight quality management principles of ISO 9000:2000 standard.

**Question 4-Case Study: Achieving a Competitive Edge through Packaging in the Food Industry**

**Background:** In the highly competitive food industry, companies are constantly looking for ways to differentiate their products and capture consumer attention. One food brand that successfully gained a competitive edge is *FreshBite Foods*, a mid-sized producer of frozen ready-to-eat meals. The company faced intense competition from large, established brands and struggled to distinguish itself in the crowded marketplace. However, FreshBite's strategic focus on innovative packaging played a key role in its turnaround.

**Challenge:** FreshBite's primary challenge was to stand out on the shelves amidst numerous competitors offering similar frozen meal options. Consumers often perceived frozen foods as bland or unappealing, leading to lower sales. The company needed a way to not only protect

the quality of its meals but also communicate its brand values of freshness, sustainability, and convenience in a way that resonated with consumers.

**Strategy – Innovative Packaging:** FreshBite decided to invest in packaging innovation, viewing it as a critical tool to achieve differentiation. They focused on the following key packaging strategies:

- Visual Appeal:** FreshBite revamped its packaging design to highlight the vibrant colors and ingredients of its meals. High-quality, clear windows were incorporated into the packaging, allowing consumers to see the actual product inside, emphasizing the freshness of the meals. Bright, clean graphics communicated the brand's commitment to health and quality.
- Eco-friendly Packaging:** In response to growing consumer demand for sustainable products, FreshBite adopted biodegradable and recyclable packaging materials. They also used minimalistic packaging to reduce waste. This not only helped FreshBite appeal to eco-conscious consumers but also aligned the brand with global sustainability trends, which became a key selling point.
- Convenience and Functionality:** FreshBite introduced resealable packaging and microwave-safe trays, which enhanced the convenience of the product for busy, on-the-go consumers. This innovation made it easier for customers to store leftovers or reheat the product without additional hassle, directly responding to the need for convenience in today's fast-paced lifestyle.
- Smart Labeling:** The packaging included clear nutritional information and cooking instructions in simple, easy-to-understand language, making it easier for health-conscious consumers to make informed decisions. Additionally, FreshBite used QR codes to provide customers with detailed sourcing information about ingredients and sustainability practices, enhancing transparency.

**Results:** By focusing on packaging innovation, FreshBite not only differentiated itself in a competitive market but also built a stronger emotional connection with consumers. The visually appealing, eco-friendly, and user-friendly packaging helped position FreshBite as a premium yet accessible brand. Within six months of the packaging redesign, the company saw a 20% increase in sales, and customer feedback highlighted the packaging as a major factor in their purchasing decisions.

**Conclusion:** FreshBite's case illustrates the significant role packaging can play in creating a competitive edge in the food industry. By focusing on aesthetics, functionality, sustainability, and consumer engagement, the company was able to address both practical and emotional needs, setting itself apart from larger competitors. In the food industry, where product differentiation is often limited by taste and price, packaging can be a powerful tool for gaining consumer loyalty and increasing market share.

**Questions:**

**4 (A)** Discuss the role of packaging in FreshBite Foods' strategy to achieve a competitive edge in the frozen food market.

**OR**

**4 (B)** If you were tasked with improving FreshBite Foods' packaging strategy further, what additional packaging features or innovations would you suggest?

**Question 5** Attempt any seven out of twelve.

1. Which of the following is a major challenge faced by the food processing industry in India?
  - A) Lack of consumer demand for fresh foods
  - B) Excessive availability of cold chain infrastructure
  - C) High regulatory compliance requirements
  - D) Minimal costs of production
2. Which preservation method involves removing moisture from food?
 

A) Freezing	C) Drying
B) Irradiation	D) Acidification
3. Which of the following is NOT a method of food preservation?
 

A) Vacuum packing	C) Pasteurization
B) Fermentation	D) Grinding
4. The primary purpose of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 is to:
  - A) Establish guidelines for food import/export
  - B) Ensure food businesses operate with a valid license and registration
  - C) Promote the growth of food processing industries
  - D) Provide financial assistance to food businesses
5. Which of the following is a principle of food preservation involving the alteration of gas composition around the food product?
 

A) Irradiation	C) Drying
B) Modified Atmosphere Packaging (MAP)	D) Acidification
6. Which preservation method is used to destroy pathogens without affecting the taste of food?
 

A) Chemical preservatives	C) Drying
B) Irradiation	D) Freezing
7. The principle of food preservation that involves lowering pH to create an acidic environment is known as:
 

A) Irradiation	C) Acidification
B) Drying	D) Freezing

8. One of the main reasons for the lack of demand for processed foods in India is:

- A) Poor quality of processed foods
- B) High consumer trust in processed foods
- C) Strong preference for fresh, home-cooked food
- D) Government restrictions on processed foods

9. Which of the following methods removes oxygen to prevent aerobic microbial growth in food preservation?

- A) Freezing
- B) Drying
- C) Vacuum packing
- D) Acidification

10. Which regulatory body is responsible for enforcing the Food Safety and Standards Act, 2006 in India?

- A) WHO
- B) FSSAI (Food Safety and Standards Authority of India)
- C) FAO
- D) ISO

11. Total Quality Management (TQM) in food processing focuses on:

- A) Reducing production costs only
- B) Improving every aspect of quality at all organizational levels
- C) Strictly inspecting products at the end of production
- D) Limiting quality control to the raw materials

12. Which preservation technique is best suited for creating shelf-stable, high-quality foods without refrigeration?

- A) Freezing
- B) Canning
- C) Drying
- D) Irradiation

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