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Barasat, Kolkata -700125

BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(FND)-Hons-2022

Course Name – Product Development and Sensory Evaluation

Course Code - BFNC603

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Define the primary objective of sensory evaluation of food.

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|------------------------|---|
| a) Determine food cost | b) Assess food quality using human senses |
| c) Measure food weight | d) Identify food origin |

(ii) Recognize the type of sensory test where participants rate food samples based on intensity and preference.

- | | |
|------------------------|---------------------|
| a) Discrimination test | b) Descriptive test |
| c) Affective test | d) Threshold test |

(iii) Define the sensory threshold in terms of basic tastes.

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|--|--|
| a) The average preference of a food | b) The minimum concentration of a substance needed to detect a taste |
| c) The point at which a food taste changes | d) The maximum number of tasters required |

(iv) Interpret the meaning of "instrumental tests" in sensory evaluation.

- | | |
|--|--|
| a) Tests using only human sensory organs | b) Tests using laboratory instruments to measure attributes like color and texture |
| c) Tests to measure the time it takes to cook food | d) Tests to measure the nutritional content of food |

(v) Demonstrate the impact of sustainability on product development.

- | | |
|--|---------------------------------------|
| a) It encourages companies to use eco-friendly materials | b) It increases production costs only |
| c) It limits product innovation | d) It reduces consumer engagement |

(vi) Identify what happens during the concept development stage.

- | | |
|------------------------------------|---------------------------------------|
| a) Final product is launched | b) Product idea is refined and tested |
| c) Financial analysis is conducted | d) Market saturation is measured |

(vii) Demonstrate how branding affects product development success.

- | | |
|---|-----------------------------------|
| a) It builds customer trust and product recognition | b) It slows down product launches |
|---|-----------------------------------|

- c) It reduces consumer interest
 d) It prevents businesses from expanding
- (viii) What is the term for a customer's regular purchasing habit of a particular brand?
 a) Brand loyalty
 b) Brand switching
 c) Market segmentation
 d) Impulse buying
- (ix) What is the primary motivation behind impulse buying?
 a) Careful product comparison
 b) Emotional triggers
 c) Long-term need fulfillment
 d) Peer pressure
- (x) Which factor is MOST important for consumers when choosing between similar food products?
 a) Advertisements
 b) Price and quality
 c) Brand logo
 d) Shelf placement
- (xi) If a consumer reads food labels before purchasing, they are engaging in:
 a) Impulse buying
 b) Price-driven buying
 c) Informed decision-making
 d) Habitual buying
- (xii) Which factor is an example of external influence on consumer food choices?
 a) Personal taste
 b) Peer influence
 c) Food allergies
 d) Nutritional needs
- (xiii) Which processed food category is growing rapidly due to consumer demand?
 a) Frozen foods
 b) Canned foods
 c) Preserved meats
 d) Packaged snacks
- (xiv) Which type of membrane technology is used to separate large molecules from smaller ones?
 a) Reverse osmosis
 b) Ultrafiltration
 c) Microfiltration
 d) Dialysis
- (xv) What type of food products commonly undergo ultrafiltration?
 a) Dried fruits
 b) Cheese and whey protein
 c) Soft drinks
 d) Baked goods

Group-B
 (Short Answer Type Questions)

3 x 5=15

2. Illustrate the stages of product development with an example from the food industry. (3)
3. What is membrane technology in food processing, and why is it important? (3)
4. How do cultural factors affect food purchasing decisions? (3)
5. What impact does product labeling have on consumer food preferences? (3)
6. Assess the effectiveness of instrumental tests in measuring sensory attributes like color, texture, and odor. (3)

OR

- Evaluate the limitations of threshold tests for basic tastes in determining consumer preferences. (3)

Group-C
 (Long Answer Type Questions)

5 x 6=30

7. Discuss the key factors considered while selecting panelists for sensory evaluation in the food industry. (5)
8. Compare analytical (discriminative) and affective (preference) sensory tests with examples. (5)
9. Analyze the role of cross-functional teams in ensuring the successful development of new food products. (5)
10. Compare and contrast reverse osmosis and ultrafiltration in food processing. (5)
11. Discuss the advantages and limitations of membrane technology in food processing. (5)
12. Evaluate the impact of extrusion technology on the nutritional and sensory properties of food products. (5)

OR
How do emerging food processing technologies contribute to the development of
alternative protein sources?

(5)

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