



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(BT)-Hons-2023/B.Sc.(BT)-Hons-2024

Course Name – Food Technology

Course Code - BBT10002

(Semester I)

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) Select the microbe which is applied in the blue cheese production

- | | |
|-------------------------------|-----------------------------|
| a) Streptococcus thermophilus | b) Lactobacillus bulgaricus |
| c) Penicillium roqueforti | d) Rhizopus stolonifer |

(ii) Name the key microorganism present in yogurt

- | | |
|-------------------------------|---------------------------|
| a) Streptococcus thermophilus | b) Leuconostoc citrovorum |
| c) Lactobacillus acidophilus | d) Streptococcus lactis |

(iii) Select the main function of soluble fiber in the diet.

- | | |
|--|---|
| a) Adds bulk to the diet | b) Promotes regular bowel movements |
| c) Lowers cholesterol levels and regulates blood sugar | d) Provides structural support in fungi |

(iv) What is the primary function of yeast in brewing?

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|----------------|---------------|
| a) Flavoring | b) Clarifying |
| c) Carbonating | d) Filtering |

(v) In the event of a food product recall, what is the primary concern of FSSAI?

- | | |
|--|--|
| a) Protecting the reputation of the food business | b) Ensuring consumers receive safe products and protecting public health |
| c) Minimizing financial losses for the food business | d) Avoiding legal consequences for the food business |

(vi) Identify the process by which FSSAI Act promote international trade of Indian food products

- | | |
|---|---|
| a) By banning all imports to protect the domestic market. | b) By harmonizing Indian food standards with international standards. |
| c) By imposing strict export restrictions. | d) By encouraging food businesses to only sell locally. |

(vii) Choose the primary role of probiotics in the human body

- | | |
|----------------------------------|----------------------------------|
| a) To provide essential vitamins | b) To enhance the flavor of food |
|----------------------------------|----------------------------------|

- c) To improve gut health by promoting beneficial bacteria
d) To act as antioxidants
- (viii) In the processing of probiotics, identify the method that is commonly used to ensure their viability and shelf stability.
a) Freeze-drying
b) Boiling
c) Microwaving
d) Fermentation
- (ix) Which method involves immersing food in a solution of salt or sugar to draw out moisture and preserve it
a) Salting
b) Sterilization
c) Canning
d) Dehydration
- (x) Select the preservation method where the food is soaked in a solution of vinegar or brine to create an acidic environment
a) Syruping
b) Pickling
c) Fermentation
d) MAP
- (xi) Write the primary purpose of pasteurization in food preservation
a) Killing harmful microorganisms
b) Removing water from food
c) Creating an acidic environment
d) Sealing food in airtight containers
- (xii) Identify the following crops that have been widely genetically modified to resist specific insect pests?
a) Wheat
b) Soybean
c) Cotton
d) Rice
- (xiii) Select the maximum allowable level of microbial contamination in drinking water as per WHO standards.
a) 10 CFU/ml
b) 100 CFU/ml
c) 1,000 CFU/ml
d) 10,000 CFU/ml
- (xiv) Write the primary purpose of withering in the tea processing process
a) Reducing moisture content
b) Enhancing aroma and flavor
c) Eliminating caffeine
d) Preventing fungal growth
- (xv) Identify the milk product that is defined as the product obtained by the removal of water from milk.
a) Ghee
b) Paneer
c) Yogurt
d) Khoya

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Give examples of some common obstacles faced by the food processing industry in India. (3)
3. All food preservatives are food additives, but all food additives are not food preservatives". (3)
Explain the above statement.
4. Write the key processes that FSSAI follows. (3)
5. Explain the term mycotoxin and two safety requirements for handling this toxin. (3)
6. Dissect the role of two antioxidants used in food preservation (3)

OR

- Evaluate the role of the major gases involved in Modified Atmosphere Packaging (MAP). (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Classify carbohydrates on the basis of their chemical structure and complexity. (5)
8. Determine the reason behind the significance of determining the total ash content and briefly describe the process. (5)
9. Give a detailed account of dairy processing using a flow chart. (5)

10. List the key components of the biosecurity in food and agriculture with brief explanation. (5) -
11. Describe the effect of food constituents on food quality. (5)
12. Imagine you are a food scientist tasked with choosing a preservation method for a specific perishable food item. Deduce the considerations you would take into account before making your decision. (5)

OR

- Compare and contrast pasteurization and sterilization as methods of food preservation. (5)
- Highlight their respective advantages and limitations
