

**B.Sc. FOOD SCIENCE & TECHNOLOGY**  
**FIRST SEMESTER**  
**FOOD CHEMISTRY**  
**BFST-102 (IDMn)**

**SET**  
**A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

**( Objective )**

Time: 15 mins.

Marks: 10

*Choose the correct answer from the following:*

**1×10=10**

- The term pH stands for:
  - Power of Hydrogen
  - Presence of Hydrogen
  - Positive Hydrogen
  - Potential of Hydrogen
- The water activity ( $a_w$ ) of pure water is:
  - 1.0
  - 0.92
  - 0.71
  - 0.54
- The emulsifier used in Mayonnaise is:
  - Milk
  - Sugar
  - Egg White
  - Egg Yolk
- The diet which contains the required essential nutrients in the right proportions is:
  - Soluble diet
  - Insoluble diet
  - Balanced diet
  - Opsin diet
- Number of Carbon atoms present in glucose is:
  - 5
  - 6
  - 7
  - 8
- Citrus fruits such as oranges, kiwi, lemon, grapefruit etc. are good source of:
  - Vitamin A
  - Vitamin B
  - Vitamin C
  - Vitamin K
- Which of the following statements is true about proteins?
  - Proteins are polymers of glucose
  - Proteins are polymers of amino acids
  - Proteins are polymers of peptide bonds
  - Proteins are polymers of disulfide bridges
- The general mechanism is that an enzyme acts by:
  - Reducing the activation energy
  - Increasing activation energy
  - Decreasing pH value
  - Increasing the pH value
- Which of the following is not an example of flavoring agent?
  - Chocolate
  - Strawberry
  - Vanilla
  - Salol

10. Which sentence is untrue with respect to the human body?
- a. Unconsumed water broken → fats
  - b. Carbohydrates broken → Sugars
  - c. Proteins broken down → Amino acids
  - d. Fats broken down → Fatty acids and glycerol

( Descriptive )

Time : 1 hr. 15 mins.

Marks : 25

[ Answer question no.1 & any two (2) from the rest ]

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|--|--------|
| 1. Describe the importance of food chemistry in analysis and processing of food. | 5      |
| 2. Define and classify carbohydrates with examples.                              | 3+7=10 |
| 3. Elaborate the mode of action of enzymes with suitable diagram.                | 10     |
| 4. What are proteins? Briefly explain its structure.                             | 3+7=10 |
| 5. Write a note on stability of water-soluble vitamins.                          | 10     |

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