

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

SET
A

[USE OMR FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

Choose the correct answer from the following:

1 × 20 = 20

- The nitrogenous base present in lecithin:
a. Choline
b. Ethanolamine
c. Inositol
d. Serine
- Which macromolecule does not dissolve in water?
a. Protein
b. Lipid
c. Carbohydrate
d. Nucleic acid
- Fats that have fatty acid with only single covalent bond in their carbon skeleton is:
a. Saturated fatty acid
b. Unsaturated fatty acid
c. Essential fatty acid
d. None of the above
- The primary stabilizing force of protein secondary structure is:
a. Peptide bond
b. Hydrogen bond
c. Ionic bond
d. Non ionic bond
- What is the function of enzymes within living systems?
a. Neurotransmitter
b. Catalyst
c. Hormone
d. Structural elements
- Alcohol dehydrogenase converts alcohol to:
a. Aldehyde
b. Sorbic acid
c. Furfural
d. Sphingosine
- Anthocyanin is a polyphenol which contain:
a. Fat
b. Sugar
c. Vitamin
d. Acid
- In phospho protein prosthetic group is:
a. Mucin
b. Phosphoric acid
c. Haemoglobin
d. FAD
- In chlorophyll at 7th position..... is present.
a. Carbonyl
b. Oxygen
c. Phytol
d. Sugar
- is the storage polysaccharide present in the liver.
a. Glucose
b. Aldose
c. Raffinose
d. Glycogen

11.is responsible for color of the red beet.
 - a. Anthocyanin
 - b. Betalins
 - c. Tannin
 - d. Chlorophyll
12. Triacylglycerol undergoes enzymatic hydrolysis which is catalysed by..... enzyme.
 - a. Lipase
 - b. Rennin
 - c. Carboxylase
 - d. Aldolase
13.mineral is present in the chlorophyll.
 - a. Calcium
 - b. Phosphorous
 - c. Magnesium
 - d. Iron
14.is responsible for the flavor of banana.
 - a. Isopentyl acetate
 - b. Citral
 - c. Benzaldehyde
 - d. Acetic acid
15.is the largest group of natural quinone pigment.
 - a. Mangiferin
 - b. Bemoquinone
 - c. Anthraquinone
 - d. Naphthoquinone
16.is a water soluble vitamin.
 - a. Thiamin
 - b. Calciferol
 - c. Ascorbic acid
 - d. Tocopherol
17. The bond angle of water is:
 - a. 104.8°
 - b. 104.5°
 - c. 104.6°
 - d. 104.7°
18. If the magnesium in the chlorophyllides is removed,are formed.
 - a. Pheophytins
 - b. Pheophorbides
 - c. Pheomagniferin
 - d. Pheorubigin
19. is a fibrous protein.
 - a. Haemoglobin
 - b. Insulin
 - c. Keratin
 - d. Phytochrome
20. is a non-enzymatic antioxidant.
 - a. Vitamin E
 - b. Bilirubin
 - c. Vitamin C
 - d. Glutathione peroxidase

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. Write a note on chemical properties of fat soluble vitamins. | 10 |
| 2. Classify protein with suitable examples. | 10 |
| 3. Explain about the Non-enzymatic browning reactions that take place in food. | 10 |
| 4. Enlist the components responsible for the color of the food product and also explain their chemical nature. | 10 |
| 5. a) Write a note on enzymes used in food industry.
b) What are the different factors which affects enzyme activity? | 5+5=10 |
| 6. a) Why density of water is more than the ice? Explain the structure of the water molecule with proper diagram.
b) Write a note on different types of aromatic compound present in food. | 2+3=5
5 |
| 7. a) Write a note on chemical properties of triacylglycerol.
b) Define phospholipids. Classify them with suitable examples. | 5+5=10 |
| 8. Distinguish between:
a) Emulsifier and antioxidant
b) Stereoisomerism and constitutional isomerism
c) Amylose and amylopectin. | 3+3+4=10 |

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