REV-00
BFST/23/28

2016/12

B SC FOOD SCIENCE & TECHNOLOGY
First Semester
FOOD CHEMISTRY
(BFST- 105)

Duration: 3Hrs. **Full Marks: 70**

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins. Marks: 50

Answer any *four* from *Question no.* 2 to 8
***Question no.* 1 is compulsory.**

1. Write the classification of carbohydrates. How non enzymatic browning differs from enzymatic browning? Briefly describe the dietary fibres. (4+3+3 = 10)

2. What is the difference between saturated & unsaturated fatty acid? Define rancidity & its type. Mention the structure of one essential fatty acid & write its nutritional importance. Write a short note on emulsion & emulsifiers. (2+3+2+3 = 10)

3. Classify protein based on chemical nature & solubility. What are the characteristics of Denaturation? Write down the structure of two sulphur containing amino acids. (5+3+2= 10)

4. What do you mean by adsorption & desorption? How water activity affects the shelf life of food? Write the chemical structure of water & also its types. (3+3+4 = 10)

5. Write the function of fat soluble vitamins. Write in brief about Thiamine & Riboflavin deficiency diseases. Enlist some rich food sources of niacin & folic acid (4+4+2 = 10)

6. Enlist macro & micro minerals. Write the function, sources of Calcium & Iron. What kind of disorders may you face if your diet is deficient of Iodine? (3+4+3 = 10)

7. What are the pigments responsible for colour of fruits & vegetables? Explain in brief. How flavour enhance taste or smell of a food? **(8+2 = 10)**

8. What is the difference between biological & non biological catalyst? Classify enzymes with examples. Mention three enzymes used in food industry with their applications. **(2+5+3 = 10)**

****

REV-00
BFST/23/28 2016/12

B SC FOOD SCIENCE & TECHNOLOGY
First Semester
FOOD CHEMISTRY
(BFST- 105)

Duration: 20 minutes **Marks – 20**

(PART A - Objective Type)

I. Choose the correct answer: **1×5=5**

1. Glyceraldehyde is an example of

a) Aldose b) Ketose c) Polysecharide d) None of these

2..Methionine is a

a)Aromatic amino acid b) basic amino acid

c) Sulphur containing amino acid d) None of these

3. An example of essential fatty acid is

a)Stearic acid b) Oleic acid

c) Arachidonic acid d) None of these

4. The protein found in rice is

a)Zein b) Gluten c) Haeme d) None of these

5. Tocopherols are

a)Vitamin D b) Vitamin E c) Vitamin K d) Minerals

II. Fill in the blanks: **1×5=5**

1.The adsorption isotherm is observed for _____ product.

2.When the sugar molecules are removed from anthocyanin, the aglucene remains is called _____.

3.In chromoprotein, the protein combines with_____.

4.Enzyme responsible for enzymatic browning is_____

5.Color of the apple is due to the pigment _____

III. Write if the following statements are true or false: 1×5=5

1.The pigment responsible for the color of Peach is peonidin. **(True/ False)**

2.Amyloses are branched in structure. **(True /False)**

3.In haemoglobin, the nitrogen atoms are linked to a central Magnesium atom. **(True / False)**

4.Pellegra is a deficiency disease of vitamin niacin. **(True / False)**

5.Linolenic acid is also known as W-3 fatty acid. **(True / False)**

IV. Match the following 1×5=5

1.Karatomalacia	A) Tea
2.Hydrogenation	B) Emulsion
3.Milk	C) Fatty acid
4.β Glycosidic bond	D) Deficiency disease
5.Tannin	E) Enzyme
	F) Cellulose