

B.Sc. FOOD SCIENCE & TECHNOLOGY
First Semester
INTRODUCTION TO FOOD SCIENCE & TECHNOLOGY
(BFST - 101)

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. How does food science & food technology differ? Food science & technology is a multidisciplinary branch. Justify. Write a few points on the significance of food science & technology. (4+3+3=10)
2. What is food spoilage? What are the causes of food spoilage? How does spoilage affect various commodity? (2+5+3=10)
3. Define rancidity. Describe the two ways in which rancidity occurs? Why ice at 0°C is less dense than liquid water at 0°C? (2+4+4=10)
4. Describe the basic food groups & their nutritional benefits. Define shortening. Write about bound water. (4+2+4=10)
5. Define autolysis. Write about the animal sources of food. Draw the food guide pyramid. (2+4+4=10)
6. What are minerals? Classify them. Write their functions. (2+4+4=10)
7. What is polymorphism? Why is synthetic or manmade vitamin C added during processing of food? Mention some of the plant food sources. (4+4+2=10)

8. What is tempering? Write the difference between Lipolytic & Hydrolytic rancidity.

Write about the marine food sources.

(4+4+2=10)

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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Mention whether true or false:

1×7=7

- a) Fats or lipids are more than twice the no. of calories per green furnished by carbohydrates on proteins.
- b) Water has maximum density at 0°C.
- c) Recommended daily intake of protein by any individual is 0.59 gm per kg of body weight.
- d) For every 10°C rise in temperature, the increase in denaturation of protein is 600 fold.
- e) Antioxidant retards the oxidation breakdown of fat.
- f) Cellulose is storage polysaccharide in animals.
- g) Glycogen is sometimes called animal starch.

II. Mention the full forms:

1×4=4

- a) PUFA :
- b) FAO :
- c) MOFPI :
- d) MSG :

III. Fill in the blanks:

1×9=9

1. Microorganism affected carbohydrate becomes silky and this condition is known as.....

2. One gram of fat gives.....energy when oxidized.
3. &coagulated by action of enzyme resin are good example of gel forming protein.
4. Simple protein yield only.....on hydrolytic degradation.
5. Non polar R-groups of amino acid are..... & polar R-groups of amino acid are.....
6. Egg contain.....% of protein and fish contain.....% of protein.
7. Waxe is ester of.....&.....
