Total number of printed pages:2

D/3rd/DFET301

2021

INTRODUCTION TO FOOD PROCESSING AND PRESERVATION TECHNOLOGY

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

Q.1 a.) Match the following with correct connections: 5

1.) Enzyme	a.)Vitamin
2.) Roentgen	b.)Protein
3.) Cellulose	c.)Mineral
4.) Manganese	d.)Irradiation
5.) Niacin	e.)Carbohydrate

1. b.) Write True or False: 5

i.) Fructose is a disaccharide.
ii.) Albumin is a water-insoluble protein.
iii.) Lycine is an essential amino acid.
iv.) Potato is a semi-perishable food.
v.) Some foods stored in frozen condition have a shelf-life of months or even years.

1.c.) Fill in the blanks: 5

i.) Fine thread-like filaments appearing as cottony growth on the surface of foods are known as ____.
ii.) Denaturation of _____ takes place when exposed to high temperatures.
iii.) An intrinsic factor effecting the growth and activity of micro-organisms is ____.
iv.) An extrinsic factor effecting the growth and activity of micro-organisms is___.
v.) _____ is one of the most radiation resistant micro-organisms.

1.d.) Choose the correct answer or option: 5

i.) Gelatinization is a property of : Proteins/Vitamins/Fats /Starch
ii.) Biological catalysts are : Carbohydrates/ Fats/Cellulose/Proteins
iii.) Caramelization is a property of : Fats/Sugars/Proteins/Vitamin
iv.) Rancidity is a phenomenon of: Fats /Sugars/Vitamins/Minerals
v.) The Vitamin which is generally known for providing a good vision is: Vitamin B1 /Vitamin A /Vitamin C / Vitamin D

2.
a.) Classify proteins on the basis of their functional role in biological systems. 5
b.) Mention any 3 points of functions/uses of Fats in foods. 5
c.) Write a note on Rancidity. 3
d.) Mention 5 benefits of low temperature preservation of foods. 7

3.
a.) What is the mechanism of action of Radiations? 4
b.) What are the factors on which the bactericidal efficiency of a given dose of irradiation depends on? 4
c.) Explain any 2(two) types of irradiation treatment given to foods with examples of foods. 5
d.) What are the types of Foods on the basis of their stability or perishability? Explain by giving examples of foods for each category. 7

4. a.) Explain how Microbial Spoilage takes place in Meat,Fish and Poultry OR Dairy products.Give names of at least 2 micro-organisms that grow on them. 10
b.) What is Fermentation of foods? Give examples of some Fermented foods. 4
c.) Write 2 properties each for sugar,starches and pectins. 2X3= 6

5. a.) Explain the preservative action of i.) salt and sugar in foods. 4+2+2=8
ii.) spices in foods iii.) oils in foods.
b.) Write the names,functions(what it does),sources(where they are found) and recommended daily value of 3(three) different Vitamins found in foods. 4x3= 12

6. a.) Write the names,functions(what it does),sources(where they are found) and recommended daily value of 3 different Minerals found in foods. 4x3= 12
b.) What are the major causes of Food Spoilage? Explain any 3 causes in details. 8

7. Write a detailed note on the hygienic aspects in food handling and processing. 20