

Total No. of printed pages = 4

FPT-301/IFPT/3rd Sem/2018/M

INTRODUCTION TO FOOD PROCESSING TECHNOLOGY

Full Marks -70

Time - Three hours

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

PART - A

1. Answer in one sentence each : 1×5=5
 - (a) What are the milk proteins ?
 - (b) What are endogenous enzymes ?
 - (c) Give one name each for a macro-mineral and micro-mineral.
 - (d) Define sterilization.
 - (e) What is roentogen ?

2. Write true or false : 1×5=5
 - (a) Bread is fermented cereal product.
 - (b) Carrot is rich source of vitamin A.

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- (c) Goiter is caused due to deficiency of iron.
- (d) Fermented products are readily digestible.
- (e) Rancidity indicates the deterioration of fats and oils.

3. Fill in the blanks : 1×5=5

(a) Lactose is a disaccharide composed of — and — .

(b) — is a unicellular fungi.

(c) Triglyceride is composed of — and — .

4. Match the following : 1×5=5

A	B
(a) Primary packaging	(i) Removal of water
(b) X-ray	(ii) Butter paper
(c) Drying	(iii) Hygroscopic material
(d) Bound water	(iv) Low temperature preservation
(e) Freezing	(v) Ionizing radiation

5. Choose the correct answer : $1 \times 5 = 5$

- (a) *Persihable / semiperishable* foods spoil readily unless special preservative methods are opted.
- (b) One of the nutrients required for energy is *carbohydrates/ minerals*.
- (c) The free availability of water may be quantitatively expressed by *water activity / moisture content*.
- (d) *Aspartame / sucrose* is an artificial sweetner.
- (e) *Cellulose / starch* is the main constituent of plant cell walls.

PART – B

6. Answer the following questions : $3 \times 5 = 15$

- (a) What are the three major groups of carbohydrate ?
- (b) What is caramelization, maillard reaction and enzymatic browning reaction ?
- (c) Name any three natural food preservatives and their uses.
- (d) Write three roles of fats and oils in biological system.
- (e) What is pasteurization ? What are the primary objectives of pasteurization ?

7. Answer any *four* questions : 5×4=20

- (a) What is fatty acid ? What are saturated and unsaturated fatty acids ? Explain with example.
- (b) What is fermentation ? What are the types of fermentation process ?
- (c) What are the different classes of protein depending on their role in biological system ?
- (d) Write about the spoilage of dairy products and fruits and vegetables.
- (e) What is meant by food preservation ? Write about the principles of food preservation.

8. Answer any *one* question : 10×1=10

- (a) What are the natural preservatives ? Explain the preservation process using natural preservatives.
- (b) Write about any one method of food preservation and their advantages.
- (c) Write in detail about various intrinsic and extrinsic factors which influence microbial activity.