

Total No. of printed pages = 4

FPT-301/TFPT/3rd Sem/2016/N

## INTRODUCTION TO FOOD PROCESSING TECHNOLOGY

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer any *five* questions.

1. (a) What are the basic principles of food preservation ? 3
- (b) Describe any one commercial heat preservation method. 5
- (c) Choose the correct answer : 1×6=6
  - (i) Pasteurization / sterilization is a low heat treatment generally done below the boiling point of water.
  - (ii) Drum drier / kiln drier is a type of drier where drying is achieved by contact of food sample with heated surface.

[Turn over

- (iii) Monosaccharides / polysaccharides are soluble in water.
- (iv) Enzymes / hormones are inactivated during blanching.
- (v) Phenolase enzymes are responsible for enzymic / non-enzymic browning in fruits and vegetables.
- (vi) Retinal / Pyridoxin is form of vitamin A.
2. (a) What are microorganisms ? Why they are important in food ? 1+3=4
- (b) Write the importance of three types of bacteria and one type of yeast. 4
- (c) What are the different factors influencing the microbial activity ? 6
3. (a) Define a fermentation process. What are the advantages of fermented foods ? 1+4=5
- (b) Write about the three indogenous enzymes and their role on different food material. 6
- (c) How are yeasts useful in food fermentation ? 3



4. (a) Differentiate between drying and evaporation. 1

(b) Write about the mechanism of drying of a food material with the help of drying rate curve. 5

(c) Write short notes on any two types of driers.  $4 \times 2 = 8$

5. (a) What is food spoilage ? Discuss the causes of food spoilage in detail.  $1 + 6 = 7$

(b) Write a note on the spoilage of dairy products due to microorganisms. 3

(c) Fill in the blanks :  $1 \times 4 = 4$

(i) Ropiness in bread is caused by ———  
—————.

(ii) ——— is a method of storage at temperature above freezing of water.

(iii) ——— and ——— are the two main compounds of a triglycerides.

6. (a) Why packaging of food is necessary ? Describe in detail. 4

(b) What are the types of food packaging ?

Discuss with proper examples of each type.

6

(c) Write about the different testing procedures for a package. 4

7. (a) Write short notes on :  $3 \times 3 = 9$

(i) Properties of pectin

(ii) Properties of sugar

(iii) Starch

(b) What are fatty acids ? What are saturated and unsaturated fatty acids ? Give example of each.  $1+2+2=5$