Total No. of printed pages = 5

FPT-301/I to FPT/3rd Sem/2017/N

INTRODUCTION TO FOOD PROCESSING TECHNOLOGY

Full Marks – 70

Time – Three hours

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

Answer *all* questions.

PART – A

1. Answer in one sentence each : 1×10=10

   (a) What is nutrient ?

   (b) What is evaporation ?

   (c) Name one fermented product of Assam.

   (d) What is the difference between drying and evaporation ?

   (e) Define fermentation.

   (f) What is meant by aseptic canning ?

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(g) Define pasteurization.

(h) What is preservation ?

(i) Give the minimum and maximum growth temperature range of mesophilic bacteria.

(j) Name a unicellular fungi.

2. Fill in the blanks : 1×5=5

(a) ——— produce undesirable changes of colour, odours, taste and physical properties in foods.

(b) Gamma radiation is generated from isotopes of ——— and ———.

(c) The red pigment present in blood is ——.

(d) The aim of ——— is complete destruction of microorganisms.

3. Match the following : 1×5=5

A	B
(a) Water activity	(i) Fermented product
(b) Vinegar	(ii) Prokaryotic organism
(c) Freeze drying	(iii) Cell organelle
(d) Golgi body	(iv) Intrinsic factor
(e) Bacteria	(v) Sublimation process

4. Choose the correct answer : 1×5=5

(a) *Rhizopus stolonifer* / *Saccharomyces cerevisiae* is the common bread mold causing ropiness in bread.

(b) Putridity / rancidity on the surface of the butter is caused by Pseudomonas putrefaciens.

(c) Night blindness is caused due to deficiency of vitamin A / vitamin E.

(d) In mammals vitamin D is required for calcium / sodium absorption.

(e) Blanching is primarily carried out to inactivate natural enzymes / proteins in foods.

PART – B

5. Answer the following questions : 3×3=9

(a) What are the methods of drying ? Explain in brief.

(b) Classify the foods based on their ease of spoilage. Give one example of each kind.

(c) What are the three types of radiation treatments given to foods ? Explain.

6. Answer any *five* questions : 4×5=20

(a) What are the basic principles of food preservation ?

(b) What are the advantages of fermentation process ?

(c) Write about the mechanism of action of radiation.

(d) Write four benefits of low temperature processing and preservation methods.

(e) Write about different general requirement of effective food packaging.

(f) Explain the working principle of any one of the mechanical drying equipment.

7. Write short notes on any *two* : 5×2=10

(a) Low-temperature processing and preservation methods.

(b) Functions of packaging.

(c) Natural preservatives.

(d) Properties of starch.

8. Answer any *one* question : $6 \times 1 = 6$

(a) Explain the steps involved in in-pack sterilization process.

(b) Discuss about the major causes of food spoilage.

(c) What are the different types of food packaging ? Explain with example.