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FPT-301/Intro to FPT/3rd Sem/2014/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) Write the functions of the following vitamins :
B1, B4, pantothenic acid, folic acid and
vitamin B-12. 2×5=10
- (b) What do you mean by food spoilage ? 2
- (c) What is hydrolytic rancidity ? 2
2. (a) Write one property each for starch and lipid.
2
- (b) Describe the various factors responsible/
affecting the growth and activities of micro-
organisms. 12

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3. (a) Explain how spoilage occurs in bakery products. Name the micro-organisms responsible. 5
- (b) Name three micro-organisms responsible for spoilage each in
- (i) cereal grains,
- (ii) vegetables, and
- (iii) dairy products. $3 \times 3 = 9$
4. (a) What are the functions of food packaging ? 3
- (b) Write any six general requirements of an effective food packaging material. 3
- (c) Write a note on the various hygienic aspects in food handling, storage and processing. 8
5. (a) What are the basic principles of food preservation ? 4
- (b) How does heat kills / destroys the micro-organisms in food ? 2
- (c) What are the primary aims of drying ? How is drying different from evaporation ? $2+1=3$
- (d) Describe the steps involved in in-pack sterilization of foods. 5

6. Write notes on any *four* : $4 \times 3.5 = 14$

- (a) Pasteurization
- (b) Preservation with salt and sugar
- (c) Preservation with the help of spices
- (d) Preservation with the help of preservatives
- (e) Fermentation
- (f) Functions of any three minerals in our body
- (g) Properties of enzymes.

7. (a) Define radiation. Explain the various types of radiation treatment given to foods. $1+3=4$

(b) What are the benefits of low temperature preservation ? 3

(c) What are the two types of low temperature processing and preservation methods ? Define them. 2

(d) Explain the three methods of freezing foods that are employed in commercial practice. 5