B.Sc. (Part—II) Semester—III Examination

3S : FOOD PROCESSING AND TECHNOLOGY

(Food Preservation)

Time : Three Hours] [Maximum Marks : 80

N.B. :— All questions are compulsory.

1. (A) Fill in the blanks :

   (i) Microorganisms that are found in all three domains of life is _____, _____ and _____.

   (ii) Moisture removal from a material is known as _____.

   (iii) Mycology is the study of _____.

   (iv) Temperature is fixed and time is varied is known as _____. 2

   (B) Choose the correct answers :

   (i) Which of the following is an infection produced from canned foods ?

   (a) Salmonellois (b) Botulism

   (c) Staphylococcal intoxication (d) None these

   (ii) Cold sterilization refers to the preservation of food by :

   (a) Refrigeration (b) Radiation

   (c) Dehydration (d) Lyophilisation

   (iii) Pasteurization is the process of heating of milk :

   (a) Above 121°C (b) Above boiling point

   (c) Below boiling point (d) Above 150°C

   (iv) Mold and yeast are included in :

   (a) Viruses (b) Parasites

   (c) Fungi (d) Bacteria 2

   (C) Answer the following in **one** sentence each :

   (i) What is the effect of irradiation on vitamins ?

   (ii) Give a reason for the use of drying to prevent food spoilage.

   (iii) What are the sources of contamination ?

   (iv) Define TDT. 4

2. (A) Describe the principle of food preservation. 4

   (B) Give the role of yeast in food processing. 4

   (C) Classify microorganisms. 4

OR

(P) Give the role of Bacteria in food industry. 4

(Q) Give the morphological characteristics of Mold with example. 4

(R) Define perishable, semi-perishable, non-perishable food with examples. 4

3. (A) Give the importance of Refrigeration and give the main parts of Refrigerator. 4

(B) What is slow and quick freezing ? Give its advantages and disadvantages. 4

(C) What are the effects of thawing on food ? 4

OR

(P) Explain the method of thawing with example. 4

(Q) Discuss about cold storage with example. 4

(R) Describe freezing; give its principles. 4

4. (A) Describe pasteurization method; give its advantages and limitations. 4

(B) Give the importance of 'D' value in food preservation. 4

(C) Describe the concept of Thermal Death Time; give its explanation. 4

OR

(P) What are the principles of heat penetration ? 4

(Q) Describe the role of canning in food preservation. 4

(R) Describe the sterilization and ultra heat treatment with examples. 4

5. Discuss factors affecting dehydration. Discuss Tunnel dryer; give its advantages and disadvantages with examples. 12

OR

Explain the following drying methods with example and give its advantages :

Belt dryer, fluidized bed dryer. 12

6. Discuss Radiation and Irradiation. Give its advantages, uses with example. 12

OR

Define sterilization; discuss about steam and dry heat sterilization with its importance and uses in food processing. 12

7. (A) Describe the properties of flexible packaging. 4

(B) Give the objectives of packaging with example. 4

(C) Give the names of eight types of packaging. 4

OR

(P) Define food packaging; give its basic function. 4

(Q) Describe low and high density polyethylene with example. 4

(R) Give the advantages of polyvinyl chloride. 4