



Answer All questions.

Time: Three hours.

1. a) Giving examples, list the physical, chemical and biochemical changes that may occur in foods on storage.
b) Discuss the significance of extrusion cooking in food industry.
c) Briefly discuss the importance of 12 D concept during heat sterilization of foods.

2. a) "Chilled distribution of foods is an essential requirement of a modern food industry" – Explain.
b) Discuss the influence of freezing rate on ice crystal formation and product quality during frozen storage of meat and meat products.

3. a) Starting at the delivery of milk to the dairy, describe the process for the production of butter.
b) Briefly discuss the mechanism by which microbial cells are inactivated by the ionizing irradiation.

4. Write Short Notes on the following;
 - a) Packaging materials.
 - b) Cereals proteins.
 - c) Use of preservatives in foods.

Contd...../2

5. a) What advice will you give to a mother of a preschool child in a village to prevent Xerophthalmia ?
- b) Describe the measures, which you would like to adopt to prevent Protein Energy Malnutrition (PEM) in a village community?
- c) List the methods of control for Iodine Deficiency Disorders.
- d) How would you prevent non-communicable diseases in human?
6. Discuss the importance of following in human nutrition.
- a) Principle Food Groups
- b) Balance Diet.
- c) Breast Feeding
- d) Assessment of Nutritional Status.

Time (hr)	Discharge (m ³ /sec)	Base flow (m ³ /sec)
0	150	150
3	190	150
6	230	150
9	300	150
12	450	150
15	600	150
18	750	150
21	1100	150
24	800	150
27	500	150
30	350	150