

**Time: 3 Hours**

**Total Marks: 80**

**N.B.**

- (i) **Question No.1. Is compulsory.**
- (ii) **Attempt any three questions out of remaining five questions.**
- (iii) **Assume suitable data and justify the same.**
- (iv) **Figures to the right indicate full marks**

- Q 1** Answer any Four. [20]
1. Good Hygiene Practices (GHP). [5]
  2. Food fortification and Food Enrichment. [5]
  3. Size reduction in solid food. [5]
  4. Freeze Concentration. [5]
  5. How the Blanching process is carried out? [5]
  6. Manufacturing process of Ice Cream. [5]
- Q.2** [20]
1. Discuss the freeze drying process in detail. Give Example of it. [10]
  2. Discuss the Ultra High Temperature (UHT) process in detail. [5]
  3. Write a brief note on homogenization of liquid food products. [5]
- Q.3** [20]
1. Discuss various membrane concentration methods used in food industry and its effects on food [10]
  2. Define Z-values and D-values in the food processing. List out the important factors which determine the heat resistance of microorganism. [10]
- Q.4** [20]
1. What are the different types of Alcoholic beverages? Write In detail beer manufacturing process. [10]
  2. What is HACCP? Write in detail 7 principles of HACCP. [10]
- Q.5** [20]
1. Write in detail how In Container High Temperature sterilization (Canning) process is carried out. [10]
  2. Write in detail Cheese manufacturing from raw milk. [10]
- Q.6 Write short note on** [20]
1. Chilling [5]
  2. Various adulterants added in various food products [5]
  3. Manufacturing process of Coffee. [5]
  4. Water Activity. [5]

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