

21 NOV 2025 TE CHEMICAL (SEM-V) C SCHEME FE QP CODE: 10097258

Time: 3 Hours

Total Marks: 80

N.B.

1. Question No. 1 is compulsory
2. Attempt any three questions from the remaining five questions
3. Assume suitable data wherever necessary

**Q. No. 1**

- a. Write a short note on the important constituents of food. [05]
- b. Write a short note on Extrusion in food processing industry [05]
- c. Discuss why blanching is an important initial operation in sterillised food product. [05]
- d. Write a short note on GHP(Good Hygiene Practices) in context of safety in food Industry.[05]
- e. Write a short note on chilling and its advantages. [05]
- f. Write a short note on coffee powder processing. [05]

**Q. No. 2**

- a. Discuss hazard analysis and critical control points concerned with food safety. [10]
- b. Write in detail about various membrane concentration processes along with examples. [10]

**Q. No. 3**

- a. List the different types of alcoholic beverages and write the manufacturing process of Beer. [10]
- b. Write short notes on the following. [10]
  1. Refrigerant used in refrigeration of foods.
  2. Modified atmosphere storage.

**Q. No. 4**

- a. Discuss important upstream processing steps involved in manufacturing of Mixed fruit jam. [10]
- b. Write in detail about Lyophilization. [10]

**Q. No. 5**

- a. Write short notes on the following. [10]
  1. Aseptic Tetra Packaging.
  2. Pasteurization in milk industry.
- b. Discuss the process of cheese manufacturing in detail. [10]

**Q. No. 6**

- Write short notes on the following (Any four)- [20]
- a. D and Z values.
  - b. Hurdle Technology.
  - c. Freeze concentration.
  - d. Thermal processing of food.
  - e. Advantages of ambient processing of foods

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