

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 2332

F-4

Your Roll No.....

Unique Paper Code : 2201402

Name of the Course : **B.Tech. Food Technology**

Name of the Paper : Food Chemistry

Semester : IV

Duration : 3 Hours

Maximum Marks : 75

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. All questions carry equal marks.
3. Question No. 1 is compulsory.
4. Attempt five questions in all.

1. Answer briefly : (2.5×6=15)

- (a) Write the different types of water in foods.
- (b) Explain any two physical properties of lipids.
- (c) Write the separation technique of proteins using electrophoresis.
- (d) Describe the role of modified starches in food industry.
- (e) What are the factors that affect the stability of carotene?
- (f) What are flavour enhancers?

2. (a) Explain the structure of water and ice. (4+4)

(b) Explain the classification of lipids. (7)

3. (a) Draw the structures of

(i) Cellulose

(ii) Any two basic amino acids (4+4)

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- (b) Describe the metal uptake process in canned foods. (7)
4. Differentiate between : (5×3=15)
- (a) Iodine value and Peroxide value
  - (b) Starch and Cellulose
  - (c) Chlorophyll and Anthocyanin
5. (a) Describe the sources and nature of food proteins. (4+4)
- (b) Explain the role of food flavours in processing. (7)
6. (a) Enlist Water soluble vitamins and explain any two in detail. (8)
- (b) Proteins are amphoteric in nature. Comment. (7)
7. Write short notes on **(any five)** (3×5=15)
- (a) Crystallization of water
  - (b) Smoke point
  - (c) Glycogen
  - (d) Maltol
  - (e) Toxic metals
  - (f) Carotenoids