



End-Term Examination (December 2018)

Program: B.Tech Biotechnology

School: School of Engineering

Course: Food Chemistry

Course Code: BTE 302

Semester: V

Max Marks: 50

Duration (mins): 2 hours

Note

A. Figures to the right indicate full marks.

B. Explain with diagrams and cite relevant examples where required.

- Q.1 What are sugar alcohols? Give an example of sugar alcohol and name the food products they are commonly used in. [10]
OR
Short Notes: (a) List the main functions of food additives
(b) Water activity
(c) Caramelization of sugars
(d) Protein quality assessment
- Q.2 Explain the terms "Zwitterion" and "Isoelectric point" with respect to amino acids and their significance. [10]
OR
Short Note: (a) Carbohydrate classification
(b) The secondary structure of proteins
(c) Milk Proteins
(d) Wheat Proteins
- Q.3 Explain the classification of amino acids and the four levels of protein structural hierarchy. [10]
OR
Short Note: (a) Food Safety
(b) Maillard reaction
(c) Anti-nutritional factors in foodstuffs
(d) Flavouring agents in Food
- Q.4 Describe in detail the types of dietary fiber and their role in food application and human health? [10]
OR
Short Note: (a) Enzymes in food processing
(b) Types of food colours
(c) Phenylketonuria
(d) Branched-chain amino acids
- Q.5 Discuss the concept of Low and No-Calorie Sweeteners (LNCS) their types and food products they are commonly used in? [10]
OR
Short Notes: (a) Food Emulsifiers
(b) Chemical composition of starch
(c) Food preservatives
(d) Antioxidants as Food Additives