

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – SUMMER • 2014****Subject Code: 131401****Date: 30-05-2014****Subject Name: Food Chemistry****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is disaccharide? State the properties and sources of maltose. **07**
(b) Explain the procedure to estimate the moisture content using nuclear magnetic resonance method. **07**
- Q.2** (a) Describe the protein denaturation phenomena with its effects on properties of protein. **07**
(b) Explain the relationship existed between water activity of foods and shelf life. **07**
- OR**
- (b) Give classification of lipid with suitable examples. **07**
- Q.3** (a) Define flavonoids. Enlist different flavonoids and state their importance. **07**
(b) Write short notes on: **07**
i) Deoxy sugars
ii) Sugar alcohols
- OR**
- Q.3** (a) Enlist plant originated pigments and describe any one in detail. **07**
(b) Describe the process of refining during manufacture of refined edible oil **07**
- Q.4** (a) Define food additives and state the functions of food additives in processed foods. **07**
(b) Define carbohydrate and explain its role in food processing. **07**
- OR**
- Q.4** (a) Explain various levels of protein structure. **07**
(b) Describe the chemical properties of food lipids **07**
- Q.5** (a) Write a detailed note on 'methods for quality evaluation of food proteins. **07**
(b) Write short notes on: **07**
i) Leavening agents
ii) Class I preservatives
- OR**
- Q.5** (a) Explain the process of conversion of chlorophyll into pheophorbides and state its effect on the food. **07**
(b) Describe the techniques used to study the physical properties of proteins. **07**
