

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER III– • EXAMINATION – SUMMER 2015

Subject Code: 131401**Date:02/06/2015****Subject Name: Food Chemistry****Time:02.30pm-05.00pm****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) Give detailed classification of food protein with suitable examples. **07**
(b) Explain the physical properties of lipids. **07**

- Q.2** (a) Enlist and explain briefly different types of water depending on binding in the foods. **07**
(b) What is amylose? Explain the properties of amylose. **07**

OR

- (b) Explain the appropriate method to estimate the moisture content of spices. **07**

- Q.3** (a) Write short notes on : **07**
i) Modified starch
ii) Invert sugar
(b) Explain the role of stabilizers and thickeners in food processing. **07**

OR

- Q.3** (a) Enlist various animal originated pigments and explain any one in detail with appropriate chemical structure. **07**
(b) Give detail classification of carbohydrates with suitable examples. **07**

- Q.4** (a) Give the detail classification of pigments with suitable examples and state the importance of pigments in the quality of food. **07**
(b) Describe betalains with structure and importance. **07**

OR

- Q.4** (a) Write short notes on : **07**
i) Clarifying agents
ii) Sugar as a preservative
(b) Explain the ideal characteristics of food additives. **07**

- Q.5** (a) Describe the phenomena of protein denaturation with it's consequences **07**
(b) Write a detailed note on 'types of lipid in food' **07**

OR

- Q.5** (a) Define essential and non essential amino acids. Give two examples of each and state the biological functions of food protein. **07**
(b) Describe the chemical properties of protein **07**
