

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM - SEMESTER- VIII- EXAMINATION – SUMMER-2016****Subject Code: 2280009****Date:10/05/2016****Subject Name: Food Analysis****Time: 10:30 AM to 1:30 PM****Total Marks: 80****Instructions:**

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

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|-------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Q.1 | (a) | Define spectroscopy. Explain beer- lambert law. How the spectroscopic techniques are useful in food analysis. | 06 |
| | (b) | Write short note on capillary electrophoresis. Give its applications. | 05 |
| | (c) | Write Short note on ultra centrifugation technique. Give its applications. | 05 |
| Q.2 | (a) | Define moisture content. Enlist different techniques used for determination of moisture content. Explain evaporation technique in detail. | 06 |
| | (b) | Define ash content. Explain how the ash content is determined in food sample. | 05 |
| | (c) | What is lipid? Write short note on determination of total lipid concentrate. | 05 |
| Q.3 | (a) | What is genetically modified food? Write short note on how genetically modified food is analysed? | 06 |
| | (b) | Enlist the techniques of microscopic food analysis. Explain enzymatic technique in detail with its application. | 05 |
| | (c) | Write Short note on analysis of pesticides in food. | 05 |
| Q.4 | (a) | Define chromatography. Explain GLC. How it is useful in food analysis? | 06 |
| | (b) | Write short note on SFC. | 05 |
| | (c) | Write short note on Flash chromatography. | 05 |
| Q.5 | (a) | Define the following as per food safety and standard act: | 06 |
| | | 1. Food | 4. Food package |
| | | 2. Infant food | 5. Food safety audit |
| | | 3. Adulterant | 6. Ingredients |
| | (b) | Write short note on unsafe food according to food safety and standards act. | 05 |
| | (c) | Give the composition of food safety and standards authority. Explain the duties and responsibilities of it. | 05 |
| Q. 6 | (a) | Write short note on central advisory committee. Explain its functions. | 06 |
| | (b) | Write short note on food contaminants. | 05 |
| | (c) | Explain responsibilities of food business operator. | 05 |
| Q.7 | (a) | Explain the techniques used to determine sugar and preservatives in food products. | 06 |
| | (b) | Write short note on detection of microbial contaminants in food sample. | 05 |
| | (c) | Write short note on stability of food products. | 05 |
