Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. - SEMESTER–8 • EXAMINATION – SUMMER -2018

Subject Code: 2280009 Date: 09/05/2018

Subject Name: Food Analysis

Time: 10:30 AM TO 01:30 PM Total Marks: 80

Instructions:

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

Q.1	**(a)**	Write short note on Gel electrophoresis. Give its applications.	**06**
	(b)	Write Short note on analysis of pesticides in food.	**05**
	(c)	Write Short note on ultra centrifugation technique. Give its applications.	**05**
Q.2	**(a)**	Define spectroscopy. Explain Beer-Lambert law. Give applications of UV spectroscopy in food analysis.	**06**
	(b)	How the Mass spectroscopy & NMR spectroscopy are useful in food analysis?	**05**
	(c)	Write a note on standards for food additives	**05**
Q.3	**(a)**	Explain the techniques used to determine starch products and preservatives in food products.	**06**
	(b)	Describe the various methods for analyzing various proteins in food products	**05**
	(c)	Write short note on stability study of food products.	**05**
Q.4	**(a)**	Define chromatography. Explain HPLC. How it is useful in food analysis?	**06**
	(b)	What is genetically modified food? Write short note on how genetically modified food is analysed?	**05**
	(c)	Write short note on flash chromatography.	**05**
Q.5	**(a)**	Explain responsibilities of food business operator.	**06**
	(b)	Define the following as per food safety and standard act: 1. Food 4. Food additive 2. Extraneous matter 5. Misbranded food 3. Adulterant 6. Ingredients	**05**
	(c)	Write short note on Scientific committee. Explain procedure for Scientific Committee and Scientific Panel.	**05**
Q. 6	**(a)**	Write short note on Duties and functions of Food Authority.	**06**
	(b)	Write short note on detection of toxic trace metals & insect infestation in food sample.	**05**
	(c)	Define moisture content. Enlist different techniques used for determination of moisture content. Explain evaporation technique in detail.	**05**
Q.7	**(a)**	Define ash content. Explain how the ash content is determined in food sample.	**06**
	(b)	Enlist general chemical and instrumental methods food analysis. Explain any one method in detail with its application.	**05**
	(c)	Write short note on food contaminants.	**05**

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