Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VIII • EXAMINATION – SUMMER 2013

Subject Code: 181405   **Date: 09-05-2013**

Subject Name: Food Ingredients and Flavour Technology

Time: 10.30 am - 01.00 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)**	Do as directed.	**08**
		i) State Petter's law in preservation by sugar.	
		ii) Write two examples each of chelating agent and Texturizing agent used in food industries.	
		iii) What is proportionality law in color matching?	
		iv) Introduce briefly properties of enzyme catalyzed reactions.	
	(b)	Write a short note on 'sorptive extraction of aroma compounds'	**06**
Q.2	**(a)**	Define supercritical fluid. Draw a well labeled phase diagram for supercritical fluid. Explain briefly the factors affecting supercritical fluid extraction.	**07**
	(b)	Discuss the basic principles and working of Hunter color meter.	**07**
		OR	
	(b)	What do you understand by leavening agent? Discuss the different types of leavening agent.	**07**
Q.3	**(a)**	Justify the statement "Flavor analysis is a formidable task"	**07**
	(b)	Describe the static and dynamic methods of flavor analysis	**07**
		OR	
Q.3	**(a)**	Write in detail about sweet taste and explain the AH/B theory given in support of detection of sweet taste.	**07**
	(b)	Write a note on stability of flavor enhancer and describe the manufacturing process of glutamates.	**07**
Q.4	**(a)**	Explain the phenomena of antimicrobial activity destruction of sorbic acid.	**07**
	(b)	State the advantages of food additives in processed food product	**04**
	(c)	Differentiate between Class I and class II preservatives.	**03**
		OR	
Q.4	**(a)**	Explain properties, mode of action and permissible levels of propionic acid and salts as preservative.	**07**
	(b)	What do you mean by enzymatically derived flavorings? Give any one suitable example.	**04**
	(c)	Highlight on Annatto as food coloring agent.	**03**
Q.5	**(a)**	What is oleoresin? What is its application in food industries?	**07**
	(b)	State limitations of E-nose technology.	**04**
	(c)	What points are considered during sample preparation for flavor analysis?	**03**
		OR	
Q.5	**(a)**	Explain the action of emulsifier in food systems.	**07**
	(b)	Comment on Nitrite and nitrate salts as food additive.	**04**
	(c)	Enlist different primary tastes and mention specific areas on tongue where they are primarily detected.	**03**

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