Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (OLD) - EXAMINATION – SUMMER 2017
Subject Code: 181405
Date: 04/05/2017

	•	Ci Coue: 101405 Date: 04/05/20.	1/	
Ti	Subject Name: Food Ingredients and Flavour Technology Time:10:30 AM to 01:00 PM Instructions: Total Mar		ks: 70	
Ins	-	1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.		
Q.1	(a)	Answer the following questions in brief. i) State the principle involved in food preservation by sugar. ii) Elaborate the mode of action of nitrites as food preservative. iii) Differentiate between food ingredient and food additive. iv) What do you mean by chemesthesis? v) Name two examples in each additives of the followings 1) Emulsifiers 2) Antioxidants	10	
	(b)	Briefly introduce the followings. i) Threshold level ii) Log P value	04	
Q.2	(a) (b)	Explain the anatomical components involved in the detection of taste. Describe the properties, mode of action and usage levels of benzoic acid as food additive.	07 07	
	(b)	OR Explain Enzyme derived flavorings with suitable example.	07	
Q.3	(a) (b) (c)	Explain static and dynamic methods of flavour analysis. What are basic tastes? Locate the identification site on tongue. Classify food preservatives as per PFA (Prevention of Food Adulteration Act).		
Q.3	(a) (b) (c)	OR Explain the principles of solubility and volatility used in the isolation of aromatic compounds. What are advantages of Food Additives in processed food product? Define acidulant. Give two examples of acidulant used in food industries.	07 04 03	
Q.4	, ,	Highlight on the functions and classifications of various leavening agents used in food industries. Explain sorptive extraction of aroma compounds. OR	07 07	
Q.4	(a) (b)	State the color matching law and explain Hunter color measurement system. Explain the flavour development stages in cocoa processing.		
Q.5	(a) (b)	Draw a well labeled phase diagram for supercritical fluids. Explain the working mechanism of supercritical fluid extraction system. Differentiate between the followings. i) Natural flavors and Nature identical flavors ii) Essential oils and oleoresins OR	07 07	
Q.5	(a) (b)	What do you mean by flavour potentiator? Briefly explain types and stability of flavour potentiator. What is olfaction? Explain theories involved in olfaction.	07 07	
