

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-VIII Examination May 2012

Subject code: 181405

Subject Name: Food Ingredients and Flavour Technology

Date: 08/05/2012

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)** Answer the following questions in brief. **10**
- (I) Differentiate between food ingredient and food additive.
 - (II) State the principle involved in preservation of food by salt.
 - (III) Mention classification of food preservative as per PFA along with two examples.
 - (IV) Write mode of action for nitrites as food preservative.
 - (V) Differentiate between natural and nature identical flavour.
- (b)** Enlist the primary taste with their site of identification on tongue. **04**

- Q.2**
- (a)** Discuss properties, action mode and food product usage of benzoic acid. **07**
- (b)** Describe various anatomical parts involved in perception of odor. **07**

OR

- (b)** Discuss the difficulties encountered in analysis of flavour compound. **07**

- Q.3**
- (a)** Define Leavening agent. Discuss different types of baking powder used in food products. **07**
- (b)** What is acidulant? Discuss two examples of acidulants. **07**

OR

- Q.3**
- (a)** Explain Nisin with respect to properties, mode of action and usage. **07**
- (b)** Explain destabilization phenomena in food emulsion. **07**

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| Q.4 | (a) Discuss cocoa flavour development in cocoa beans. | 07 |
| | (b) What do you understand by SCF extraction (Supercritical Fluid Extraction)? | 04 |
| | (c) Define texturizing agent and humectant. Enlist one example for each. | 03 |

OR

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| Q.4 | (a) Explain enzyme derived flavorings with suitable example. | 07 |
| | (b) What are advantages and limitations of oleoresins? | 04 |
| | (c) Explain briefly hunter color system. | 03 |

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| Q.5 | (a) | Describe mechanism for detection of sour taste. | 07 |
| | (b) | Explain the principles of solubility and volatility involved in isolation of aroma compounds. | 07 |

OR

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| Q.5 | (a) | Explain different anatomical parts involved in taste perception. | 07 |
| | (b) | What is the significance of flavour potentiators in processed foods?
Explain in brief about types and stability of flavour potentiators. | 07 |