

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014****Subject Code: 181405****Date: 27-05-2014****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) State the appropriate reasons for the following statements. **08**
i) Essential oil does not impart complete flavor to food product.
ii) Butylated hydroxy toluene is less effective than butylated hydroxyl anisole as antioxidant.
iii) Nisin is used in the combination of chelating agent.
iv) Emulsifier HLB index is widely used for selection of emulsifier.
(b) Define: 1. Food Additive 2. Flavor 3. Log P value **06**
- Q.2** (a) What are classes of food additives? Explain any one of them with suitable example. **07**
(b) Explain deep fat fried flavors in detail. **07**
- OR**
- (b) Describe essential oils and oleoresins used in flavor industry. **07**
- Q.3** (a) Explain the general mechanism involved in detection of any primary taste **07**
(b) What are various aspects considered during sample selection and preparation for flavor analysis **07**
- OR**
- Q.3** (a) Explain the principles of solubility and volatility used in aroma isolation **07**
(b) Describe the various anatomical parts involved in detection of taste by human **07**
- Q.4** (a) Discuss Munsell color system for color measurement. **07**
(b) Explain salient features of supercritical fluid extraction. **07**
- OR**
- Q.4** (a) Explain the formation of cocoa flavours during various stages of cocoa processing. **07**
(b) Discuss the functions and mode of action of sulphur dioxide / sulfates as food additive. **07**
- Q.5** (a) Justify the statement 'Chemical structure of compound affects its taste' in relation with four primary tastes **07**
(b) Describe the CIE system used for colour measurement **07**
- Q.5** (a) What is the role of flavor enhancer in food and describe manufacturing process for one of most widely used flavor enhancer in food industry. **07**
(b) Write in detail about theories of olfaction **07**
