| Seat No.: | Enrolment No |
|-----------|----------------------------------|
| | GUJARAT TECHNOLOGICAL UNIVERSITY |

| | | BE - SEMESTER – VI● EXAMINATION – SUMMER 2015 | | |
|-----------------|---------------------------------|--|-----------------|--|
| • | | ode:161402 Date:04/05/201 nme: Food Rheology & Sensory Evaluation | Date:04/05/2015 | |
| Time: | 0 am to 01:00 pm Total Marks: 7 | Total Marks: 70 | | |
| Instru | | | | |
| | | Attempt all questions. Make suitable assumptions wherever necessary. | | |
| | | Figures to the right indicate full marks. | | |
| Q.1 | (a) | Write short notes on the following | 07 | |
| | | (i) Resilience (ii) Rupture point (iii) Stiffness | | |
| | | (iv) Hue (v) Lambert's law (vi) Extinction | | |
| | (b) | (vii) True stress Explain how the study of rheology helps in designing the new food | 07 | |
| | (b) | products? | U | |
| | | products. | | |
| Q.2 | (a) | Explain composite scoring method of food? How it is useful in the food | 07 | |
| ~ ·- | () | industry. | 0. | |
| | (b) | 1 | 07 | |
| | | 1. Visco-elastic and Visco-plastic material | | |
| | | 2. Bio yield point and rupture point of crispy product. OR | | |
| | (h) | On a stress-strain curve show the following and discuss their importance. | 07 | |
| | (6) | 1. Secant modulus | U I | |
| | | 2. Chord modulus | | |
| | | | | |
| Q.3 | (a) | What are the requirements of setting a food sensory evaluation laboratory? | 07 | |
| | (b) | What are the different types of reactive surfaces used in the e-nose? | 07 | |
| | (2) | Discuss its applications and limitations in a food industry? | 0. | |
| | | OR | | |
| Q.3 | (a) | Explain principle and working of any one of the food color measuring | 07 | |
| | | instrument. | | |
| | (b) | 5 71 3 6 6 | 07 | |
| | | the product? Explain? | | |
| Q.4 | (a) | Why electrical analogs are preferred over the mechanical analogs to | 07 | |
| Q. T | (a) | measure the rheological properties of food? | U. | |

| | (b) | With a neat diagram explain degree of plasticity of food? Which are the food properties influenced by the plasticity of the food? OR | 07 |
|-----|------------|---|----|
| Q.4 | (a) | With the help of force v/s time curve explain the following terms: Brittleness, Hardness, Adhesiveness and Stringiness | 07 |
| | (b) | Design a consumer questionnaire to evaluate the new food product? | 07 |
| | | | |
| Q.5 | (a) | Define texture? Explain how it is measured with the help of texture measuring instrument? | 07 |
| | (b) | What is the importance of the time of relaxation in food? Develop its relationship with initial stress? | 07 |
| | | OR | |
| Q.5 | (a) | Discuss the effect of particle size, fat content and moisture content on chocolate. | 07 |
| | (b) | What is the importance of the time of retardation in food? Develop its relationship with initial strain? | 07 |
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