

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII • EXAMINATION – SUMMER • 2014

Subject Code: 171401

Date: 22-05-2014

Subject Name: Food Packaging Technology

Time: 02:30 pm - 05:00 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** Answer the following questions in brief. **7x2=14**
- a. What is Rationale of packaging?
 - b. Packaging means value addition. For whom?
 - c. How packaging helps in marketing?
 - d. How packaging helps in handling and storage?
 - e. Why knowledge of market is required for developing package?
 - f. What is the significance of alumina and lime in glass manufacturing?
 - g. “YE DIL MANGE more from Package”. Explain?
- Q.2** (a) What are the requirements of an ideal Package? **07**
- (b) i. What are the requirements of Aseptic packaging? **03**
- ii. Explain how tear test helps in differentiating PE and PVC? **04**
- OR**
- (b) i. What are biodegradable films? **03**
- ii. What are the requirements and safety issues of edible films? **04**
- Q.3** (a) Explain the working of Form, Fill and Seal machine used for packaging of food products? **07**
- (b) What are the various base plates are used in can making of food products? Explain the process of making TFS? What are the points to be specified while placing the order for cans? **02+03+02**
- OR**
- Q.3** (a) With neat sketch explain the working of Piston Type filling system used for liquid food? **07**
- (b) What is blister packaging? Compare thermoforming and cold forming blister packaging process? **07**
- Q.4** (a) Discuss various deteriorations take place during storage in the onion and onion powder. How to control them? Suggest suitable packaging material to enhance their shelf life? **07**
- (b) Explain the important properties and applications of PET and BOPP plastic films in food packaging? **07**
- OR**
- Q.4** (a) Discuss different types of deteriorations take place in the pre processed breakfast cereals during storage and what are their causes? Suggest packaging material for them. **07**
- (b) How shelf life of packaged food is estimated with the Half Value Period Method? **07**

- Q.5** **(a)** Why coating on the glasses are done? List the different coating materials and their effect? **07**
- (b)** Discuss effect of temperature, light and oxygen availability in pasteurize milk and butter on its shelf life? **07**
- OR**
- Q.5** **(a)** Write a note on package labeling as per FSSAI? **07**
- (b)** Discuss various deteriorating factors effect the quality of bakery products? Suggest suitable packaging materials for enhancing their shelf life? **07**

-X-X-X- X-X-X-X-