

No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. VIIth Semester–Examination – Nov- 2011

Subject code: 171401

Subject Name: Food Packaging Technology

Date: 19/11/2011

Time: 10:30 am – 01:00 pm

Total Marks: 70

Instructions:

- I. Attempt all questions.**
- II. Make suitable assumptions wherever necessary.**
- III. Figures to the right indicate full marks.**

- Q.1** (a) Answer in brief:
- i. Rational of packaging **03**
 - ii. Nature is the best packaging material for some commodities **02**
 - iii. Logistical packaging adds value. Justify the statement. **02**
- (b) Justify packaging means PAISE for all the stake holders? **07**
- Q.2** (a) Discuss the advantages and limitations of Aluminum container with respect to food packaging. **07**
- (b) What are the precautions to be taken for placing the order of cans? **07**
- OR**
- (b) What are the parameters should be considered for an ideal package? **07**
- Q.3** (a) Answer in brief.
- i. Limitations of use of glass in food packaging. **04**
 - ii. Differentiate between Aseptic packaging and canning **03**
- (b) Prove that increase in the size of the spherical fruits will not affect the porosity of the packing in CFB boxes if fruit touches all the sides of the box? **07**
- OR**
- Q.3** (a) Write short notes on-
- (i) PET **04**
 - (ii) Shelf life estimation of dehydrated packaged food **03**
- (b) An aluminum foil lined cylinder (60cm diameter and 120cm high) is used to fill the bulk fruit powder (particle density 800 kg /m³) with a porosity of 44%. If in one cylinder 10 kg extra powder is filled. Calculate the per cent increase or decrease in the porosity. **07**
- Q.4** (a) Suggest suitable packaging materials for **07**
- i. Semi cooked low fat vitamin rich breakfast cereal
 - ii. Butter
- (b) Briefly describe different types of smart packaging material available in the market. **07**
- OR**
- Q.4** (a) Suggest suitable packaging materials for **07**
- i. Freshly harvested strawberry
 - ii. Chocolates
- (b) Describe the components and working of Form Fill and Seal machine **07**

- Q.5** **(a)** Explain the different tests conducted for paper and paper board used for packaging. **07**
- (b)** Discuss possible hazards and suggest step by step suitable packaging material for a product having following characteristics: **07**
 Crispy, low moisture, high fat, triangular shape sweet products
- OR**
- Q.5** **(a)** Explain edible packaging films. What are their advantages and limitations? **07**
- (b)** What do you understand by blister packaging? Differentiate between thermoforming and Cold Form foil blister pack. **07**
