

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2023

**Subject Code:3162310**

**Date:12-07-2023**

**Subject Name:Plastics Packaging Technology**

**Time:10:30 AM TO 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.
4. Simple and non-programmable scientific calculators are allowed.

	<b>MARKS</b>
<b>Q.1</b> (a) Define : Packaging, Retort Packaging , Shelf Life	<b>03</b>
(b) Discuss consumer Packaging with features	<b>04</b>
(c) Discuss in detail, functions of a Package.	<b>07</b>
<b>Q.2</b> (a) Discuss role of colour as a sales medium.	<b>03</b>
(b) Which category of people need packaging?	<b>04</b>
(c) What is Packaging? Discuss in detail about Primary, Secondary and Tertiary Packaging with suitable examples.	<b>07</b>
<b>OR</b>	
(c) What is an Institutional Package? Give atleast 2 examples highlighting primary, secondary and tertiary packaging	<b>07</b>
<b>Q.3</b> (a) What is a eco label and how it is significant in export marketing?	<b>03</b>
(b) Discuss Package Graphic Design.	<b>04</b>
(c) What is the advantages and disadvantages of Plastics in Packaging.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) What is aseptic Packaging? Discuss with example.	<b>03</b>
(b) What is a retort package? Give examples	<b>04</b>
(c) What is cushion packaging? Discuss	<b>07</b>
<b>Q.4</b> (a) What is water vapour transmission rate. How is it measured?	<b>03</b>
(b) A Pesticide liquid is to be packed in a bottle. The liquid has an ability to release vapours on storage. Suggest what kind of bottle materials, packaging should be done if we need 1 year shelf life.	<b>04</b>
(c) What is the difference between MAP and CAP? Give examples and discuss in detail.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Mangoes are to be sent to various parts of India. What is the type of Packaging required for this product?	<b>03</b>

- (b) What is the difference between flexible and rigid packaging? **04**
- (c) Discuss in detail , the types of Corrugated boxes used by Packaging Industry. **07**
- Q.5** (a) Discuss features of effective Design. **03**
- (b) What is the difference between blister and skin package? **04**
- (c) State the role of a package in minimizing the effects of hazards on the following products: **07**
- a. A pack of biscuit
  - b. A pack of butter
  - c. Carbonated beverages
- OR**
- Q.5** (a) What are climatic hazards? Discuss **03**
- (b) A toothpaste is to be sent for exports. Discuss all types of Packaging which are needed both for air cargo and sea cargo. **04**
- (c) Highlight and discuss types of tests performed on Packages. **07**

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