

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI(NEW) EXAMINATION – WINTER 2022****Subject Code:3162310****Date:16-12-2022****Subject Name:Plastics Packaging Technology****Time:02:30 PM TO 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.
4. Simple and non-programmable scientific calculators are allowed.

		<b>MARKS</b>
<b>Q.1</b>	(a) Discuss consumer Packaging with features.	<b>03</b>
	(b) Discuss role of colour as a sales medium	<b>04</b>
	(c) What is Packaging? Discuss in detail about Primary, Secondary and Tertiary Packaging with suitable examples	<b>07</b>
<b>Q.2</b>	(a) What is aseptic Packaging? Discuss with example.	<b>03</b>
	(b) A toothpaste is to be sent for exports. Discuss all types of Packaging which are needed both for air cargo and sea cargo	<b>04</b>
	(c) Discuss in detail, hazards in distribution. Give examples of each.	<b>07</b>
<b>OR</b>		
	(c) Discuss in detail, functions of a Package.	<b>07</b>
<b>Q.3</b>	(a) What is a retort package? Give examples	<b>03</b>
	(b) Which category of people need packaging?	<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.3</b>	(a) What is a eco label and how is it significant in export marketing?	<b>03</b>
	(b) What is the difference between blister and skin package?	<b>04</b>
	(c) What is Shelf life? Discuss its importance. Give suitable examples	<b>07</b>
<b>Q.4</b>	(a) A refrigerator is to be sent from Uttrakhand factory to Southern parts of India. What are the types of hazards which the product will encounter during transit? Explain how this information will help design the packaging for this product?	<b>03</b>
	(b) Discuss Package Graphic Design	<b>04</b>
	(c) What is cushion packaging? Discuss.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) A packet of biscuits gained 0.25g of water in the first day of exposure and 20g altogether when left opened. At what time would it have gained exactly 5g of moisture [ the spoilage value]?	<b>03</b>

- (b) A pesticide liquid is to be packed . Discuss various types of materials that can be used for this kind of packaging. **04**
- (c) Discuss in detail, features of effective Design. **07**
- Q.5** (a) Discuss Industrial Packaging with features **03**
- (b) What is an Institutional Package? Give atleast 2 examples highlighting primary, secondary and tertiary packaging. **04**
- (c) What are the advantages and disadvantages of Plastics in Packaging. **07**
- OR**
- Q.5** (a) What is the difference between flexible and rigid packaging? **03**
- (b) What is water vapour transmission rate. How is it measured? **04**
- (c) Discuss in detail, testing of plastic packages **07**

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