

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2024

Subject Code:3162310

Date:22-05-2024

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.

		MARKS
Q.1	(a) Discuss the role of color as a sales medium in packaging.	03
	(b) Define Packaging and state the needs for packaging.	04
	(c) Discuss the advantages and limitations of Plastics in Packaging.	07
Q.2	(a) Explain the advantage of Vacuum packaging.	03
	(b) Discuss about types of packaging.	04
	(c) Describe the Modified Atmosphere Packaging (MAP) and Controlled Atmosphere Packaging (CAP).	07
	OR	
	(c) Discuss about Impact Test and Compression Test in packaging.	07
Q.3	(a) Describe the need for changes in packaging design.	03
	(b) Describe various hazards occurring in distribution.	04
	(c) Explain the requirements for packing pesticides and pharmaceutical products in bottles through rigid packaging.	07
	OR	
Q.3	(a) Describe the importance of drop test and vibration test in packaging.	03
	(b) Discuss about the role of BOPP films in packaging	04
	(c) Explain the Shrink wrap and Stretch wrap packaging.	07
Q.4	(a) Explain briefly Retort packaging.	03
	(b) State the properties and applications of PET as a packaging material.	04
	(c) Discuss in details about cushion packaging.	07
	OR	
Q.4	(a) Discuss the properties of heat shrinkable films.	03
	(b) State the properties and applications of LDPE as a packaging material.	04
	(c) List and discuss various pouch styles used in packaging.	07
Q.5	(a) Explain briefly different Cap designs used in packaging.	03
	(b) Discuss about tetra packs used in dairy industry.	04
	(c) Explain the following i) Aseptic Packaging ii) Blister packaging	07

OR

- Q.5**
- (a)** List the characteristics of Flexible packaging and give its applications **03**
 - (b)** Discuss about Form/Fill/Seal machines used in packaging. **04**
 - (c)** Explain the Water Vapor Transmission rate test for plastic films used in packaging. **07**
