No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII • EXAMINATION – SUMMER • 2015

•	ubject code: 171401 Date: 01/05/2		15
Time	: 02.30 _] actions Atten Make	pm-05.00pm Total Marks: 70	
Q.1	(a)	 Answer the following questions in brief. 1) Differentiate between packaging and packing. 2) What do you understand by thermoplastic label? 3) State limitations of aluminum containers with respect to food packaging. 4) Brief about PET as packaging material. 5) Elaborate EVOH, HMHDPE, LDPE and BOPP with respect to plastics. 	10
	(b)	Suggest a packaging material for the butter. Discuss various defects during the storage.	04
Q.2	(a) (b)	Enlist ingredients used for glass manufacturing along with their significance. Explain the manufacturing process briefly. What are advantages of flexible laminate packaging material over rigid	07 07
		containers? OR	
	(b)	What is the importance of compatibility of the packaging machine in the process line?	07
Q.3	(a)	Describe the mechanical and climatic hazards which deteriorate the crispy product quality during handling and storage. Suggest suitable packaging materials.	07
	(b)	Discuss properties, advantages and limitations of polyamide.	07
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Q.3	(a)	"Compare tetra pack, plastic bottle, glass bottle and metal can as packaging material for liquid food on the ease of filling and emptying; printability, tamper proof, protection from light, protection from gas transmission environmental friendliness, reusability, re-sale value and appearance.	07
	(b)	Explain the effect of different parameters on the quality of corrugated fiber board (CFB) box.	07
Q.4	(a)	Plastic is boon or bane for packaging. Justify the statement.	07
	(b)	Write down the steps for selecting the packaging material for partially processed breakfast cereals.	04
	(c)	Why knowledge of market is essential in selecting packaging material?	03
		OR	
Q.4	(a)	What is active packaging? Explain it with suitable examples.	07
	(b)	"Packaging means value addition." For whom? And How?	04
	(c)	Why Packaging is an important unit operation in the marketing management?	03
Q.5	(a)	Discuss components and working of Form, Fill and sealing machine.	07
	(b)	Write tear test behavior in identification of plastic films PE, PP, PVA and PVC.	04
	(c)	How Logistical packaging adds value in handling, storage and distribution?	03
		OR	
Q.5	(a)	Discuss advantages and limitations of edible packaging.	07
	(b)	Differentiate between thermoform blister and Cold Form Foil blister packaging.	04
	(c)	What are precautions to be taken to avoid rusting in metal tin containers?	03
