

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – SUMMER 2013****Subject Code: 142304****Date: 17-06-2013****Subject Name: Plastic Packaging Technology****Time: 10:30am – 01:00pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is Packaging. What are the purposes of packaging? **07**
(b) List the various material used for packaging. Enlist the advantages and disadvantages of each material? **07**
- Q.2** (a) Define new product development. Explain the different _____ involved in new product development? **07**
(b) Discuss importance of glass in packaging. Discuss manufacturing, advantages and disadvantages? **07**
- OR**
- (b) Discuss about the natural polymers involved in plastic _____ ing? **07**
- Q.3** (a) What are the types of packaging and explain each type with suitable examples? **07**
(b) Explain the various tests carried out for evaluation of package. Explain about Drop test in detail? **07**
- OR**
- Q.3** (a) Define waste hierarchy? Enlist the steps involved in waste hierarchy? **07**
(b) Differentiate between Skin and Blister packaging? **07**
- Q.4** (a) Explain various tests conducted on corrugated boards? **07**
(b) Write short notes on **07**
(1) Shelf life
(2) Logistics
- OR**
- Q.4** (a) What is Bag in Box Packaging. Discuss advantages of this kind of packaging? **07**
(b) Write short notes on **07**
(1) Child resistant Packaging
(2) Tetra Packs
- Q.5** (a) What is Biodegradable Packaging. Discuss its importance? **07**
(b) Write short notes on **07**
(1) Water Vapour Transmission Rate(WVTR)
(2) Controlled Atmosphere Packaging(CAG)
- OR**
- Q.5** (a) Explain in brief about properties and applications of LLDPE films? **07**
(b) Discuss importance of paper in packaging. Discuss manufacturing, advantages and disadvantages? **07**
