

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER 2013****Subject Code: 142304****Date: 30-12-2013****Subject Name: Plastic 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.

- Q.1 (a)** Enlist the different types of plastic films available for packaging. Explain LLDPE and PS film. **07**
- (b)** Explain Mechanical Testing done on Plastic Film. **07**
- Q.2 (a)** What is corrugated board? Enlist types of corrugated boards. Provide Properties of corrugated board. **07**
- (b)** Explain climate hazards in detail. **07**
- OR**
- (b)** What are the functions of package? Explain in detail. **07**
- Q.3 (a)** Where we required migration test? Explain with neat sketch Water Vapour Transmission Rate (WVTR). **07**
- (b)** What is package wrapping Techniques? Explain Shrink Film Wrapping in detail. **07**
- OR**
- Q.3 (a)** Where we required migration test? Explain with neat sketch Gas Transmission Rate (GTR). **07**
- (b)** What is package wrapping Techniques? Explain Stretch Wrapping in detail. **07**
- Q.4 (a)** What is Regular Slotted Container (RSC)? Enlist types of RSC. Draw and explain different types of Dividers, Liner, Pad and Support Block available in corrugated boxes. **07**
- (b)** Explain Setup Boxes in detail with its types and advantages and disadvantages. **07**
- OR**
- Q.4 (a)** Enlist different types of Paper available for packaging with advantages and disadvantages. Explain them in detail with treatment of papers. **07**
- (b)** Why we need to change package design? Explain it. **07**
- Q.5 (a)** Define Packaging in terms of “Market”. Draw a chart showing relationship with other disciplines. And explain who needs packaging. **07**
- (b)** What are the basic design factors for good design of package? **07**
- OR**
- Q.5 (a)** Enlist and explain in detail, types of packaging. **07**
- (b)** Explain shelf life in detail. **07**
