Seat No.:	Enrolment No
-----------	--------------

GUJARAT TECHNOLOGICAL UNIVERSITY ME- SEMESTER II— EXAMINATION – SUMMER 2015

Subject Code: 2722411 Date:30/05/ 2015 **Subject Name: Plastics Packaging Technology** Time: 2:30 PM - 5:00 PM **Total Marks: 70** Instructions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. What are the functions of packaging? Give the properties and applications of 0.1 07 LDPE, HDPE and LLDPE used as plastics packaging material. **(b)** Give properties and applications of Polypropylene (PP) and Polyvinyl chloride 07 (PVC) used in packaging. **Q.2** (a) What is Blown up ratio? Describe blown film manufacturing process with line 07 diagram. (b) Explain manufacturing of biaxial oriented cast film with neat diagram. Give 07 difference between cast film and blown film. **(b)** Give properties and applications of Polystyrene (PS) and Polyamides (Nylons) 07 used in packaging. (a) Explain manufacturing of soft drink bottles using injection stretch blow Q.3 07 molding process. **(b)** Explain Injection blow molding (IBM) process with neat diagram. Give 07 difference between IBM and EBM OR 0.3 Explain flexographic printing and rotogravure printing with diagram. 07 (b) Describe Pad printing process with neat diagram and also give their 07 applications. **Q.4** (a) Discuss Extrusion lamination and Thermal lamination with neat diagram. 07 Explain scrap-less thermoforming process with neat diagram along with its 07 advantages and applications. OR (a) Discuss about stretch wrap and shrink wrap form of flexible plastic packaging. 07 0.4 **(b)** Which types of heat sealing are used in plastics packaging? Explain. 07 0.5 (a) Explain Dart Impact testing of plastic packaging film with neat diagram. 07 **(b)** Write a note on: Tear strength. 07 (a) Explain determination of Burst strength of plastic film. 07 0.5 (b) Explain evaluation of co-efficient of friction of plastics films used in packaging. 07 *****
