

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII • EXAMINATION – WINTER 2013****Subject Code: 172301****Date: 26-11-2013****Subject Name: Advanced Plastics Processing****Time: 10:30 TO 01:00****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) Explain different types of roll arrangement of calendaring process with neat sketch. **07**  
(b) Explain manufacturing Process of Overhead water storage tank with neat sketch. **07**
- Q.2** (a) Explain multi-layer film plant with neat sketch. **07**  
(b) Define Encapsulation. Explain process with neat sketch & Application. **07**
- OR**
- (b) What is Calendaring Process? Discuss Compound Formulation Preparation (Blending and Gelation) in detail. **07**
- Q.3** (a) Discuss: (1) Manufacturing Process of Acrylic sheet by casting. **07**  
(2) Various mold materials used for casting process.  
(b) List the characteristics required for polymer as coating powder. **07**  
Explain Electro static-Fluidized Bed method with neat sketch.
- OR**
- Q.3** (a) Give a list of various mechanical methods of machining of plastics. Explain Drilling and Reaming in detail. **07**  
(b) Short Note: (1) Off-set Printing (2) In-mold Decorating **07**
- Q.4** (a) List the various surface treatments use for Plastics. Explain about corona-discharge method with sketch. **07**  
(b) Explain Vacuum Metallization process in detail with neat-sketch. **07**
- OR**
- Q.4** (a) Explain High pressure structural foam molding process with neat sketch. **07**  
(b) Explain about electroplating processing for plastics. **07**
- Q.5** (a) Classify foam with their application. Explain General Production Methods. **07**  
(b) Compare: Reaction Injection Molding & Injection Molding of Thermo plastic **07**
- OR**
- Q.5** (a) Explain RIM process with neat sketch. **07**  
(b) Explain about Deep molding Process. **07**

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