

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1721605

Date: 20-06-2014

Subject Name: Polymer Processing

Time: 02:30 pm - 05:00 pm Total Marks: 70

Instructions:

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

- Q.1** (a) How would you select a blender for carrying out mixing & compounding a particular Polymer? Write in detail. (04)
- (b) Describe the working of an Intensive dry mixer. (04)
- (c) Explain the working of Continuous Kneader with the help of sketch. (06)
- Q.2** (a) What is Thermoforming? List the important aspects of thermoforming process. Write about any two in detail. (07)
- (b) Answer the following.
- (i) Write the classification of Polymer processing methods. (03)
- (ii) List the factors on which process selection depends. (04)
- OR
- (b) List the different techniques for Thermoforming. Write advantages & disadvantages of thermoforming. (07)
- Q.3** (a) Write about the application & advantages of Calendering process. (07)
- (b) Discuss the processing parameters of Calender Machine. (07)
- OR
- Q.3** Discuss in detail about Calendering process with plant details. (14)
- Q.4** Enlist the various types of molding methods and describe any four in brief. (14)
- OR
- Q.4** Enlist & Explain any five common problems with molding blanks that can lead to inferior quality of moldings. (14)
- Q.5** (a) Write in detail about the fundamentals of Extrusion. (07)
- (b) Discuss about the Ram Extruders & List the advantages & disadvantages of Ram Extruders. (07)
- OR
- Q.5** (a) Discuss in detail about the factors affecting extruder's output. (07)
- (b) How many zones are available in single screw extruder? Write about any one in detail. (07)
