

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – WINTER 2013****Subject Code: 142603****Date: 26-12-2013****Subject Name: Rubber Engineering****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 marks.

- Q. 1 (a)** What do you mean by topping? Which methods are available for it? **07**
Explain any one method in detail.
- Q. 1 (b)** Answer the following
- i** How flash and spew removal is carried out by low temperature tumbling? **04**
 - ii** Write down the main sources of potential danger, typical causes of accident and method of guarding for internal mixer. **03**
- Q. 2 (a)** Discuss the following features with respect to mixing mill: (i) Ancillary Requirements (ii) Safety Devices **07**
- Q. 2 (b)** Answer the following
- i** Give the advantages and disadvantages of batch mixing. **04**
 - ii** Write in brief about transfer mix. **03**
- OR**
- Q. 2 (b)** Discuss in detail about the various stages of mixing process. **07**
- Q. 3 (a)** Write a short note on vacuum extruder. **06**
- Q. 3 (b)** Answer the following
- i** Differentiate the ram extruder and screw extruder. **05**
 - ii** Define the term mould. Also give the general classification of mould. **03**
- OR**
- Q. 3 (a)** Discuss in detail about the problems associated with extrusion process. **07**
- Q. 3 (b)** Answer the following
- i** Write a brief note on extruder as strainer. **03**
 - ii** Write a short note on mould releasing agents. **04**
- Q. 4 (a)** List the different types of compression mould. Discuss any two in detail. **07**
- Q. 4 (b)** Answer the following
- i** Write down the causes and remedies for following moulding problems: (i) Poor Knitting (ii) Pebbling **04**
 - ii** Define the following terms: (i) Transfer Pot (ii) Sprue (iii) Runner **03**
- OR**
- Q. 4 (a)** Discuss in detail about the types of transfer moulding. **07**
- Q. 4 (b)** Answer the following
- i** Write down the causes and remedies for following moulding problems: (i) Backrinding (ii) Undercure **05**
 - ii** Define the following terms: (i) Parting Line (ii) Sprue Bush **02**

- Q. 5 (a)** Answer the following
- i** Describe about the clamping unit of injection moulding machine. **05**
 - ii** How the rubber injection moulding machine differs from the plastics injection moulding machine? **02**
- Q. 5 (b)** Discuss the classification of hydraulic press. **07**
- OR**
- Q. 5 (a)** Discuss the classification of injection moulding machine with respect to its position. **07**
- Q. 5 (b)** Answer the following
- i** Write a short note on Bag-O-Matic press. **05**
 - ii** Explain term multi daylight press. **02**
