

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E –IIst SEMESTER–EXAMINATION – JULY- 2012

Subject code: 1724002

Date: 09/07/2012

Subject Name: Rubber Blends

Time: 10:30 am – 13:00 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) Describe about Multiphase Elastomers. (07)**
(b) Describe analytical methods for rubber-rubber blends. (07)

- Q.2 (a) Explain about Cure Systems for NR/NBR41 blends. (07)**
(b) Describe about the effect of Polychloroprene content on crosslink distribution & physical properties. (07)

OR

- (b) Discuss the Compounding of NR/NBR blends for food contact applications. (07)**
Q.3 (a) Write the importance of Dynamic Vulcanisation for NR/EPM blends. (07)
(b) Discuss about the resistance to environmental damage by NR/EPM blends. (07)

OR

- Q.3 (a) How can be achieving high damping properties for rubber products? (07)**
(b) Discuss the effect of incorporating HV-BR into NR/ENR-25 blends. (07)
Q.4 Describe the different approaches to improving NR/EPDM blend properties. (14)

OR

- Q.4 Write in detail about the Effect of EPDM modification on Crosslink density & Phase morphology. (14)**
Q.5 (a) Discuss in detail about the modification of different EPDM grades & also discuss the interaction of modified EPDM & Carbon Black. (07)
(b) Describe in detail about initial preparation & assessment of blend compounds (NR/EPDM). (07)

OR

- Q.5 Discuss in detail about Blends of Carboxylated Elastomers with other Polymers. (14)**

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