Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER - III • EXAMINATION - WINTER • 2013

Subject code: 734001 Date: 26-11-2013 **Subject Name: Rubber Waste Utilisation** Time: 10.30 am - 01.00 pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. Why waste rubber should be reclaimed or recovered? List the reasons. **Q.1** (06)**(b)** Short note on "Ultra sound recycling." (08)**Q.2** Discuss the Biotechnological possibilities for reclaiming of rubber. (07)(a) Discuss the change in the network structure during the recycling process. (07)**(b)** OR Discuss the change in the phase structure during the recycling process. (07)**(b)** What do you mean by opening of sulphur crosslink? Explain in detail. **Q.3** (07)(a) Short note on Mechanical Reclaiming process. (07)**(b)** OR Write about the processing and mixing of Cryogenically ground rubber. **Q.3** (07)(a) Short note on "Latex product reclaiming." **(b)** (07)**Q.4** Discuss in detail about the impact of the waste tires on air, water & soil. (14)OR Describe in detail about the effect of various types of rubber recovery **Q.4 (14)** operations on workers health & safety. **Q.5** Write about the application of whole waste tires & processed waste tires. **(14)** OR **Q.5** Discuss about the summary of barriers to solving scrap tire problem. **(14)**
