Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject code: 712502N Date: 07/07/2012 Subject Name: Theory and Design of Textile Machinery-I Time: 2:30 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. 0.1 (a) Elaborate on areas of major change in cylinder wires and impact of these 07 changes on cylinder loading, trash extraction and yarn quality. **(b)** What is the role of bale management in blow room? 07 0.2 (a) With neat sketch explain the design changes in high speed ring and 07 (b) Discuss the use of robotics on a ring frame for monitoring, piecing, 07 cleaning and transportation of material. (b) Explain the opening devise design changes used in blow room with 07 importance. (a) What is the importance of mixing in modern blow room? Describe with 07 0.3 sketch Rieter mixer. (b) "Concentric nipper movement meet the heavier lap feed requirement in 07 modern comber." Explain it with suitable diagram. (a) How unilap sequence produces better lap quality with respect to batt 07 Q.3 length and strength improvement? (b) What is the merit and demerit of chute feed system. With neat sketch 07 explain simplafeed chute feed system. **Q.4** (a) What is the advantage of unidirectional feed in modern card compared 07 with conventional card? (b) What is blending delay? Why is it not a problem in conventional spinning 07 line? OR (a) Why autoleveller is must on modern card? Also mention different types of 07 **Q.4** autoleveller on card with neat sketch. **(b)** Write a note on Uster Zellweger BIAS. 07 (a) Describe design changes made in drafting arrangement of a high speed 07 **Q.5** draw frame. "New generation combers show better fibre selectivity with optimum 07 noil%." Explain. OR (a) Write a note on builder mechanism, flyer and drive modification on a 07 **Q.5** speed frame. (b) Discuss various developments made in licker in wires for high speed 07 production card.
