GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION - WINTER 2013

Subject Code: 142901 Date: 19-12-2013 Subject Name: Yarn Manufacturing- II Time: 02:30 pm to 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) Write the objects of comber machine in brief. Explain the importance of 07 combing process in details. (b) In brief explain how breaker draw frame is different from finisher draw 07 frame? **Q.2** (a) With neat sketch, explain in details one complete combing cycle. **07 (b)** Explain Sliver lap machine with suitable diagram. 07 **(b)** State the objective of Draw frame and discuss how they are 07 accomplished. (a) In brief explain the influence of machine components and settings on 0.3 07 Combing performance. (b) Write short note on -1) Combing Cylinder and 2) Top Comb. 07 (a) With neat sketch, explain various types of gauges used for carrying out 07 0.3 settings of comber. **(b)** Describe the features of modern comber. **07 Q.4** (a) Explain working of open and close loop autoleveller of draw frame. 07 (b) Discuss various types of roller weighing system of drafting section at 07 draw frame. OR (a) A Laxmi rieter draw frame works with the following: 07 **Q.4** Front roller diameter = 44 mm, Front roller rpm = 2000, number of delivery = 2; and Hank delivered = 0.16If the Draw frame works at 75% efficiency what will be the production in Kg./delivery/shift? **(b)** Describe various types drafting system arrangement at draw frame. **07** 0.5 (a) Explain in detail about important parts of Speed frame. 07 (b) State the objects of builder mechanism and explain how to obtain all 07 these objects on speed frame machine? **Q.5** (a) Following data refers to speed frame: **07** Flyer speed = 1000 rpm, Sliver hank = 0.18, Roving hank = 1.6, T.M. = 1.2, Efficiency = 85 % Find (i) draft (ii) Production in pounds/shift/spindle **(b)** What is differential motion? Explain use of differential motion on speed **07** frame.
