

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION – WINTER • 2014

Subject Code: 2132806

Date: 30-12-2014

Subject Name: Textile Manufacturing - I

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) After Ginning, how cotton can be converted into lap sheet at blowroom? 07
(b) State objects of Carding. Also show passage of material in Carding machine. 07
- Q.2 (a) How we can get yarn with suitable fineness at Ring frame? 07
(b) How predetermined quantity of short fibers is removed at Comber? 07
- OR
- (b) Calculate the production of a Scutcher (Blowroom) if the lap weight is 13 oz/yd and the diameter and speed of shell roller are 11 rpm and 240 mm respectively. Furnish the production in oz/hr, when the efficiency of the machine is 75%. 07
- Q.3 (a) How yarn can be formed at Rotor spinning? 07
(b) What is Friction spinning? Discuss DREF – 1 and DREF – 2 with neat sketch. 07
- OR
- Q.3 (a) Write short note on – Air Jet Spinning. 07
(b) Make comparison of Ring spun yarn, Rotor spun yarn and Air jet spun yarn. 07
- Q.4 (a) Discuss in brief about different production methods of Man-made yarns. 07
(b) What is Texturising? What are the advantages of textured yarns? State different methods of Texturising. 07
- OR
- Q.4 (a) What are the objects of winding? Discuss different Package faults of winding. 07
(b) Show passage of material in 1) Drum winding machine & 2) Upright spindle winding machine. 07
- Q.5 (a) Why yarn tension is important winding parameter? Describe different yarn tensioners in detail. 07
(b) Explain Pirn winding with suitable diagram. 07
- OR
- Q.5 (a) Discuss different types of Knots in detail. 07
(b) For winding machine, calculate the time required to produce a cone weighing one pound. [Given information : Average speed of drum – 2000 rpm, Count of yarn – 20s, Slippage – 5%, Efficiency – 75% & Drum Dia. – 3 inches] 07
