

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – WINTER 2013****Subject Code: 172901****Date: 30-11-2013****Subject Name: Modern Spinning Technology****Time: 10:30 TO 01:00****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) List out the modifications of Schalfrost autocoro360 to improve yarn quality. **07**
(b) Discuss the terms: spinning in coefficient and maximum spinning time. **07**

- Q.2** (a) Briefly explain the integration of fibres into yarn in rotor spinning system. **07**
(b) Elaborately discuss the method of production of Twilo twistless spinning process. **07**

OR

- (b) Explain the working of DREF2 and DREF3000 friction spinning system with neat sketch. **07**

- Q.3** (a) Write a note on wrap spinning system. **07**
(b) Give classification of the air jet spun yarn structure. **07**

OR

- Q.3** (a) Why condensed spun yarn is better than ring spun yarn? Explain. **07**
(b) With neat sketch compare the principle of air jet and vortex spinning system. **07**

- Q.4** Discuss: (1) α min and PTE in rotor spinning system (2) spinning stability **14**
(3) fibre migration (4) packing fraction

OR

- Q.4** How microdust affect rotor spun yarn quality and efficiency? What corrective action should be taken to minimize it? Also discuss automatic cleaning devise in rotor spinning system. **14**

- Q.5** (a) What are the advantages and disadvantages (limiting factor) of high rotor speed? **07**
(b) Write a note on siro spinning system. **07**

OR

- Q.5** (a) Describe features of latest blowroom line and ring frame. **07**
(b) How back doubling affects rotor yarn quality and derive formula for calculating number of back doubling. **07**
