

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 172904

Date: 24/11/2011

Subject Name: Process & Quality Control in Spinning

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.

- Q.1 (a)** Discuss the scope of process control in Spinning. **07**
- (b)** Explain the various indices of productivity, giving their significance and briefly describe the method of computation of PI. Briefly explain the measures for controlling productivity. **07**
- Q.2 (a)** What is periodic irregularity? State the reasons of its occurrence and ways to minimize it. **07**
- (b)** Explain the method of assessment of yarn faults and briefly explain the causes of excessive Slubs and Crackers. **07**
- OR**
- (b)** What is machinery audit? Discuss how it helps in minimizing maintenance cost. **07**
- Q.3 (a)** What is L.P. technique? State how it helps in formulating least cost mixing. **07**
- (b)** Write on the control of soft waste and its affect on yarn realization. **07**
- OR**
- Q.3 (a)** Discuss the ways to improve and optimize cleaning efficiency of Blow room giving sub-standard performance. **07**
- (b)** Discuss the technological aspects for optimizing waste at comber. **07**
- Q.4 (a)** How can productivity of Ring frame be maximized? **07**
- (b)** Explain the concept and importance of snap study. **07**
- OR**
- Q.4 (a)** Discuss the scope and means for increasing machine productivity of the preparatory section of spinning. **07**
- (b)** Explain how the following factors affect the within-bobbin count variation of a ring frame bobbin : **07**
- a) Control of stretch at fly frame
 - b) Roller lapping and fibre shedding
- Q.5 (a)** Discuss the reasons for occurrence of thick place and the remedial measures. **07**
- (b)** What is the contribution of Blow room, Card and Comber in generation of neps? **07**
- OR**
- Q.5 (a)** Discuss the factors affecting yarn strength. **07**
- (b)** Discuss the reasons for hairiness in the yarn and the controlling measures. **07**
