

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – WINTER 2013****Subject Code: 172904****Date: 07-12-2013****Subject Name: Process and 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) Explain the importance of formulation of mix and describe how, simultaneous control of mixing cost and quality is achieved ? **07**
- (b) What are the technological considerations involved in controlling the comber waste? **07**
- Q.2** (a) Why waste and cleaning should be control at blow room? How poor performance of the blow room can be improved ? **07**
- (b) Why calculation of Yarn Realisation is important in spinning? Hence describe the method of accessing and controlling it. **07**
- OR**
- (b) Which factors are influencing the optimization of waste at card ? **07**
- Q.3** (a) Explain Following:- **07**
- i. Bale management
 - ii. Considerations involved in deciding Key variables in process control in spinning
- (b) Discuss the method for routine check of comber waste. **07**
- OR**
- Q.3** (a) What is difference between Machinery Audit and Routine maintaince ? with neat diagram explain any one instrument used in machinery audit. **07**
- (b) Explain Following:- **07**
- i. Defination of Quality & Control
 - ii. Ring Data System on Ring Frame for Modern Process Control in spinning.
- Q.4** (a) Explain the important steps for measuring Productivity Index of a mill. **07**
- (b) Discuss the factors affecting between bobbin count variation. **07**
- OR**
- Q.4** (a) Discuss in detail effect of various machines in spinning line on nep generation. **07**
- (b) Discuss the various factors affecting yarn strength. **07**
- Q.5** (a) Discuss the causes for following factors causing loss in efficiency at ring frame (i) Idle spindles (ii) waiting before and after doffing Also suggest remedial measures. **08**
- (b) Explain the random component of yarn irregularity in detail. **06**
- OR**
- Q.5** (a) Discuss briefly the problem of (i) Yarn Hairiness (ii) Slubs **08**
- (b) What is Snap study? Explain briefly how it is conducted to improve productivity. **06**
