

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – WINTER • 2014****Subject Code: 172904****Date: 04-12-2014****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 simultaneous control of mixing cost and quality using graphical method. **07**
- (b)** Discuss technological considerations involved in control of comber waste. **07**
- Q.2 (a)** What is Yarn realization? What is its importance? Only draw a chart of the records to account for yarn realization. **07**
- (b)** Explain, with the help of necessary sketches how poor performance of blow room can be improves using gravity trap and grids in suction pipe. **07**
- OR**
- (b)** What is Machinery Audit? How it is different from the routine maintenance? Explain any one instrument used for machinery audit with the neat sketch. **07**
- Q.3 (a)** What is instrumental evaluation? What is its importance? What is the limitation of instrumental evaluation? **07**
- (b)** Explain object and procedure of Bale management in spinning. **07**
- OR**
- Q.3 (a)** Explain following with respect to considerations evolved for process control in spinning: **10**
- i. Key variables for process control in spinning
 - ii. Collection and Interpretation of data
 - iii. Taking corrective action
- (b)** Briefly explain features of HVI(High volume instruments) and AFIS(Advanced fibre information system) **04**
- Q.4 (a)** State Productivity Indices of Mill. **07**
Describe important steps to calculate Productivity of Mill.
- (b)** Within Bobbin Count Variation cannot be attributed to Blow Room and Card. Justify the statement. **07**
- OR**
- Q.4 (a)** Discuss various factors that affect Yarn strength. **07**
- (b)** Discuss the problem of Crackers and Hairiness briefly. **07**
- Q.5 (a)** Describe Periodic and Quasi periodic irregularities and hence discuss how it can be controlled. **10**
- (b)** What is Rkm value? How it is calculated? **04**
- OR**
- Q.5 (a)** Discuss various causes of loss in efficiency at Ring Frame. Also briefly discuss remedial measures to control the loss. **10**
- (b)** Explain briefly how Yarn grading is carried out. **04**
