Seat No.: _____ Enrolment No._____

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: i. Key variables for process control in spinning ii. Collection and Interpretation of data iii. Taking corrective action	**10**
	(b)	Briefly explain features of HVI(High volume instruments) and AFIS(Advanced fibre information system)	**04**
Q.4	**(a)**	State Productivity Indices of Mill. Describe important steps to calculate Productivity of Mill.	**07**
	(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**

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