Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2182907 **Date: 06/05/2017**

Subject Name: Process & Quality Control in Spinning

Time: 10:30 AM to 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 various factors affecting between bobbin count variation.	**07**
	(b)	Classify end breaks taking place at ring frame into different categories with suitable example for each.	**07**
Q.2	**(a)**	Discuss various factors affecting yarn strength.	**07**
	(b)	Describe briefly how yarn appearance is judged along with grades.	**07**
		OR	
	(b)	Describe briefly causes and remedies for : (i) Slough off (ii) Yarn hairiness	**07**
Q.3	**(a)**	Describe corrective actions that can be taken in a mill for following causes of loss in efficiency at ring frame : (i) Waiting for doffing (ii) Waiting for empty bobbins (iii) Idle spindles	**09**
	(b)	Describe briefly random component of yarn irregularity.	**05**
		OR	
Q.3	**(a)**	State various indices of productivity along with the expression to calculate it. Hence briefly describe how PI of mill can be calculated.	**09**
	(b)	Discuss effect of various spinning machines on nep generation.	**05**
Q.4	**(a)**	What is yarn realization? Discuss methods of assessing and controlling it.	**07**
	(b)	Explain simultaneous control of mixing cost & quality by graphical method.	**07**
		OR	
Q.4	**(a)**	Explain the role and scope of process control in spinning with the help of chart.	**07**
	(b)	Explain control of mixing quality through individual fiber characteristics.	**07**
Q.5	**(a)**	Explain machinery audit done by the spinner giving check list of spinning machines.	**07**
	(b)	Describe performance assessment of comber.	**07**
		OR	
Q.5	**(a)**	Explain how to determine trash content and cleaning efficiency of blow room.	**07**
	(b)	Explain in detail modern process control in spinning on ring frame.	**07**

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