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GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– VIII (New) EXAMINATION – WINTER 2019

Subject Code: 2182907   **Date: 25/11/2019**

Subject Name: Process & Quality Control in Spinning

Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	(a)	State the need for process control in spinning?	03
	(b)	What is yarn realization?	04
	(c)	Discuss in detail about the machine audit.	07
Q.2	(a)	What is Productivity Index (PI)?	03
	(b)	Discuss briefly about bale management.	04
	(c)	Write a short note on yarn faults.	07
		OR	
	(c)	Explain how the implementation of process control is carried out in cotton spinning.	07
Q.3	(a)	What are the key variables for process control in spinning?	03
	(b)	The quality of mixing affects the cost. Explain.	04
	(c)	Discuss how the yarn realization of a mill is judged.	07
		OR	
Q.3	(a)	Write briefly about the determination of trash content and cleaning efficiency.	03
	(b)	How is performance of blow room assessed?	04
	(c)	Discuss the measures to control the quality of mixing and hence the cost.	07
Q.4	(a)	How can machine efficiency in ring spinning be maximized?	03
	(b)	Write briefly about optimizing cleaning at cards.	04
	(c)	Discuss the technological considerations with reference to control of comber waste.	07
		OR	
Q.4	(a)	Write briefly about control of variability of lea strength.	03
	(b)	Which are the different types of yarn irregularity?	04
	(c)	Discuss in detail about reducing within bobbin count variation.	07
Q.5	(a)	What is RKm of single thread?	03
	(b)	Write briefly about the high volume instrumentation.	04
	(c)	Discuss the factors affecting yarn strength.	07
		OR	
Q.5	(a)	State the causes of thick and thin places.	03
	(b)	Write briefly about package defects.	04
	(c)	Discuss the use of modern instruments in process control.	07

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