

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2017****Subject Code: 2182907****Date: 15/11/2017****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) Define the term quality.	03
	(b) Discuss the key variables for process control in spinning.	04
	(c) Explain the significance of process control and quality control in spinning.	07
Q.2	(a) What is yarn realization?	03
	(b) Why single thread strength is not used as a measure of yarn quality?	04
	(c) Describe the methods to formulate mixing in terms of lea strength of yarn. What are their limitations?	07
OR		
	(c) Discuss the contribution of blow room, card and comber in generation of neps.	07
Q.3	(a) State the methods to measure fractionating efficiency of a comber.	03
	(b) What is instrumental evaluation? What are its limitations?	04
	(c) Discuss the reasons of occurrence of thick places and also state the remedial measures.	07
OR		
Q.3	(a) Explain the effect of quality of drafting on yarn strength.	03
	(b) What is periodic irregularity? State the methods of its measurement.	04
	(c) How stretch at fly frame leads to high within-bobbin count variation? Discuss.	07
Q.4	(a) Explain the effect of quality of combing on yarn strength.	03
	(b) Suggest the remedies to minimize periodic irregularity.	04
	(c) Discuss the measures to increase ring frame efficiency and productivity.	07
OR		
Q.4	(a) Write on the effect of soft waste on yarn realization.	03
	(b) How can yarn appearance be measured?	04
	(c) Discuss the factors affecting PI of a mill.	07
Q.5	(a) How can soft waste be controlled?	03
	(b) Discuss the reasons of hairiness in yarns.	04
	(c) Explain HVI and discuss its advantages.	07
OR		
Q.5	(a) Explain in brief about the concept of bale management.	03
	(b) What are the various package defects?	04
	(c) Write a short note on machinery audit.	07
