

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2182901****Date:15/05/2019****Subject Name:Principles of Textile Processes****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.

		MARKS
Q.1	(a) Explain The Importance Of Size Pick Up.	3
	(b) Write Short Note On Power Required For Picking.	4
	(c) Explain Foster Theory Of Perfect Drafting.	7
Q.2	(a) Explain The Significance Of Fiber Acceleration Behind Top Comb.	3
	(b) Explain Only Procedure To Find Out Transfer Efficiency.	4
	(c) Derive An Equation For Traveler Speed.	7
OR		
	(c) What Are The Reasons Of End Breaks At Ring Frame? Discuss.	7
Q.3	(a) What Is Cleaning Efficiency Of Blow Room?	3
	(b) Discuss The Factors Affecting Drafting Force.	4
	(c) Define Transfer Ratio And Residual Ratio. Derive An Equation To Find Transfer Ratio Of Card.	7
OR		
Q.3	(a) State The Limitations Of Negative Friction Type Let Off Motion.	3
	(b) Why Perfect Drafting Is Not Achieved In Conventional Draw Frame?	4
	(c) Derive The Formula For Friction Forces In Negative Let Off Motion Also Discuss Design Of Let Off Mechanism.	7
Q.4	(a) State The Configuration Of Fibers In Card Sliver.	3
	(b) Discuss The Factors Affecting Drafting Force.	4
	(c) Derive An Equation Of Yarn Tension At Any Radius 'R'	7
OR		
Q.4	(a) Write The Various Factors Affecting Motion Of Sley.	3
	(b) Derive Equation Of Winding Tension (Tw) In A Spinning Balloon Zone.	4
	(c) Discuss The Importance Of Size Pick.	7
Q.5	(a) Explain 'Alacrit' With Respect To Picking Mechanism	3
	(b) Discuss Interrelationship Between Shedding And Beat Up Briefly.	4
	(c) Derive An Equation For Sley Velocity With Necessary Assumptions And Draw The Curve.	7
OR		
Q.5	(a) Is The Acceleration Of Shuttle Uniform? Why?	3
	(b) State The Types Of Stretch In Sizing And Factors Affecting It.	4
	(c) Explain Briefly Power Required For Picking.	7
