Seat No.:	Enrolment No.

Subject code: 182901

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII • EXAMINATION – SUMMER • 2015

Date: 15/05/2015

Subject Name: Principles of Textile Process Time: 10.30AM-01.00PM		Total Marks: 70	
Instructions:			
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What is cylinder loading? Derive an equation to calculate cylinder loading.	07
	(b)	Explain effect of unwinding tension of ring package on performance of winding machine. Hence discuss the various factors affecting unwinding tension.	07
Q.2	(a)	Define fractionating efficiency of comber. State its importance. Also derive an equation for fractionating efficiency of comber.	07
	(b)	•	07
	(b)	Which factors are considered for the optimization of cleaning at blow room.	07
Q.3	(a)	What is Transfer efficiency of card? Explain only procedure to find out transfer efficiency.	07
	(b)	Explain following in drawn sliver:- fibre configuration, fibre straightening and hook removal. OR	07
Q.3	(a)	Explain along with the equations spinning tension in balloon formation zone (Balloon Tension).	10
	(b)	Explain, chase length and coil density in reference to optimizing yarn content on ring bobbin.	04
Q.4	(a)	Explain the term stretch and importance of its control in sizing machine. State types of stretch and factors affecting it.	07
	(b)		07
Q.4	(a)		07
۲۰٦	(u)	interrelationship between shedding and beating briefly.	V 1
Q.4	(b)		07
Q.5	(a)	Discuss briefly various aspects of weft insertion in Airjet loom.	07

(b) Explain the design of negative letoff motion and hence 07 discuss the major limitation.

OR

- Q.5 (a) Using suitable diagram discuss about velocity, acceleration 07 and retardation of projectile .
 - (b) Discuss Tracer fibre Technique to describe fibre **07** arrangement in card sliver.
