

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV(New) EXAMINATION – SUMMER 2016

Subject Code:2142901**Date:03/06/2016****Subject Name:Yarn Manufacturing - II****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	Short Questions	14
	1 The main combing cylinder rotates intermittently. True or False	
	2 The number of comber lap preparatory processes between Card and comber should be _____.	
	3 The detaching rollers in the comber rotates in _____ Directions.	
	4 The combing process deteriorates _____ in the sliver.	
	5 The combing process is efficient in removing _____ hook.	
	6 The spindle top inserts are used in roving frame to introduce _____ in the roving.	
	7 Asymmetric web condensation is preferably used in the Cotton combing machine to condense the combed fiber web Delivered by the detaching roller. True/False.	
	8 The speed of the bobbin rail in roving frame _____ as the Bobbin build up.	
	9 Tension change wheel in roving frame is changed to adjust The apron tension in drafting. True/false.	
	10 Typical draft given in roving frame is _____	
	11 What are the value of doubling and drafting in drawframe.	
	12 In roller drafting system top rollers are _____ driven Roller.	
	13 Doubling of sliver improve _____ in material.	
	14 In _____ autoleveller the measuring device located at Delivery side.	
Q.2	(a) What is the objects of draw frame?	03
	(b) Write short note on bottom roller of draw frame.	04
	(c) Write short note on 1) Drafting wave 2) Roller nip movement.	07
	OR	
	(c) Write short note on 1) Open loop autoleveller 2) Close loop autoleveller.	07
Q.3	(a) Write objects of comber.	03
	(b) Write short note on nippers of comber machine.	04
	(c) Which parameters are influence in the feed stock on combing?	07
	OR	
Q.3	(a) Define the term Condenser and spacer.	03
	(b) Why even number of machines are used between card and	04

- comber?
- (c) Discuss the cylinder comb and top comb of comber with neat sketch. **07**
- Q.4** (a) Discuss the objects of speed frame. **03**
 (b) Discuss the different types of flyers. **04**
 (c) Describe the combing cycle with neat sketch. **07**
- OR**
- Q.4** (a) Explain the passage of comber machine with neat sketch. **03**
 (b) Write short note on flyer top and pressure arm. **04**
 (c) Discuss the modern development in drawframe. **07**
- Q.5** (a) Briefly explain Suction system for drafting arrangement in drawframe. **03**
 (b) Describe the noil extraction theory with forward feed. **04**
 (c) Calculate comber production in kg/day/machine from the following data: **07**
 Type of feed: Backward.
 Detachment setting: 15mm
 Waste percentage: 20.25
 Comber speed: 350 nips/min
 Comber lap weight: 21 kgs
 Comber lap length: 300meters
 Efficiency: 88%
 Maximum fiber length (f_m): 40mm
- OR**
- Q.5** (a) Discuss the 3 over 3 roller drafting system. **03**
 (b) Write short note on modern development in speed frame machine. **04**
 (c) Calculate speed frame production in pound/shift/spindle and draft from following data: **07**
 Flyer speed: 1000rpm
 Sliver hank: 0.18
 Roving hank: 1.6
 T.M: 1.2
 Efficiency: 85%
