

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– IV (New) EXAMINATION – WINTER 2019

Subject Code: 2142901

Date: 13/12/2019

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	(a) What are the objectives of comber machine? Give the name of different types of combing machine.	03
	(b) What are the objectives of speed frame?	04
	(c) Discuss the modern developments in draw frame machine.	07
Q.2	(a) Write the function of following terms: (1). Spacer, (2). Pressure bar.	03
	(b) With a suitable sketch explain the 3 over 3 roller drafting system.	04
	(c) With a suitable diagram explain the passage of material on draw frame machine.	07
	OR	
	(c) With a suitable sketch discuss the bobbin building mechanism in speed frame machine.	07
Q.3	(a) Discuss the different types of top roller weighing system used in roller drafting system.	03
	(b) With a suitable sketch discuss the construction of bottom rollers of roller drafting system.	04
	(c) What are the function of Autoleveller? With a suitable diagram explain the working principle of open loop autoleveller.	07
	OR	
Q.3	(a) With a suitable sketch describe the construction of combing cylinder in a comber.	03
	(b) With a suitable diagram give the explanation why even number of machines are used between card and comber.	04
	(c) Discuss the influence of the feed stock on combing process?	07
Q.4	(a) With a suitable sketch describe the construction of nipper assembly.	03
	(b) What is forward feed and backward feed in combing operation?	04
	(c) With suitable sketch explain construction and working of modern combing preparatory machine.	07
	OR	
Q.4	(a) What is the difference between flyer lead and bobbin lead speed frame?	03
	(b) Explain the noil extraction theory with backward feed.	04
	(c) With a suitable sketches explain the sequence of operations in a rectilinear comber.	07
Q.5	(a) Write the function of following terms: (1) Condenser, (2). Apron.	03
	(b) With a suitable sketch explain flyer top.	04
	(c) With suitable sketches explain the different type of flyers.	07
	OR	
Q.5	(a) With a sketch define presser arm in speed frame.	03
	(b) Write a short note on aprons used in speed frame machine.	04
	(c) Discuss the modern developments in speed frame machine with suitable sketches.	07
