

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- V (New) EXAMINATION – WINTER 2019****Subject Code: 2152901****Date: 25/11/2019****Subject Name: Yarn Manufacturing-III****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) Draw a neat sketch of passage of material on ring frame and name the parts.	03
	(b) What is spinning geometry?	04
	(c) How is yarn tension maintained at the ring frame?	07
Q.2	(a) What are the objectives of builder mechanism on ring frame?	03
	(b) Compare the compact yarns and conventional ring spun yarns.	04
	(c) State the objectives of ply twisting, explain the concept of balance twist and mention the limitations of ring doubling system.	07
	OR	
	(c) How is auto doffing carried out at ring frame? Explain the concept in detail.	07
Q.3	(a) Write briefly about the spinning triangle.	03
	(b) How is balloon shape controlled during ring spinning?	04
	(c) State the objectives of drafting system and explain its construction with a neat sketch.	07
	OR	
Q.3	(a) Write briefly about the creels on ring frame.	03
	(b) What are the factors affecting the end breaks at ring frame?	04
	(c) State the functions of spindle and write in detail about spindle drive.	07
Q.4	(a) What are the functions of ring and traveler?	03
	(b) What is e-drafting?	04
	(c) Write in detail about the production of sewing threads.	07
	OR	
Q.4	(a) What are the advantages of two-for-one twisting over ring doubling?	03
	(b) Which are the different ring shapes? Write briefly about the ring material.	04
	(c) Name the different types of fancy yarns and explain the production of any two with neat sketches.	07
Q.5	(a) How is running in of new rings carried out?	03
	(b) Write briefly about the drive to the ring spinning machine.	04
	(c) State the advantages of compact spinning and explain the working with a neat sketch.	07
	OR	
Q.5	(a) What is the importance of traveller mass?	03
	(b) How is production calculated at ring spinning machine?	04
	(c) Write in detail about the recent developments in ring spinning.	07
