

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- V EXAMINATION-SUMMER 2023****Subject Code: 3152901****Date: 26/06/2023****Subject Name: Yarn Manufacture III****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Enlist the advantages of Balloon control rings?	03
	(b) Discuss in brief the importance of Spinning triangle.	04
	(c) Draw a neat sketch of mechanism used for building the Cop base	07
Q.2	(a) Define the terms: Centrifugal force & Coriolis force.	03
	(b) What are the limitations of the conventional ring & C-shaped traveler system?	04
	(c) With a brief description explain any one Compact Spinning system.	07
	OR	
	(c) Show the angles & dimensions making up Spinning Geometry with a neat & labelled sketch.	07
Q.3	(a) Define the terms: Centre of gravity & Centre of symmetry.	03
	(b) Discuss the significance of Traveller mass.	04
	(c) Discuss in brief the effect of balloon height on spinning tension.	07
	OR	
Q.3	(a) Calculate the T.M for 1(1/4)'' staple length.	03
	(b) Write short note on Filling wind.	04
	(c) Enlist the Spinning, Doubling & Twisting drive systems. Explain in detail any one of them.	07
Q.4	(a) Enlist the advantages of half round wire section of traveller.	03
	(b) Enlist the properties of Fancy yarn.	04
	(c) With neat sketches explain auto doffer operating cycle sequence.	07
	OR	
Q.4	(a) Compare "Z" on "Z" and "S" on "Z" Doubled yarns.	03
	(b) What are the main advantages of "Anti-wedge" rings?	04
	(c) Discuss in brief about reducing end breaks in Doubling.	07
Q.5	(a) What is meant by Cabled yarn?	03
	(b) Discuss the manufacture of Two-colour spot yarn.	04
	(c) Discuss the possibilities for automation in Ring frame.	07
	OR	
Q.5	(a) Enlist the important characteristics of Cots.	03
	(b) Write in brief about Loop & Slub yarn.	04
	(c) Discuss the manufacture of Gimp yarn & Snarl yarn.	07
