Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY BE- Vth SEMESTER-EXAMINATION - MAY/JUNE - 2012

Subject code: 152901 Da Subject Name: Yarn Manufacturing- III			ate: 01/06/2012	
Time: 02:30 pm – 05:00 pm Total Ma Instructions:		rks: 70		
1. 2.	Atte Mak	empt all questions. The suitable assumptions wherever necessary. The suitable are the right indicate full marks.		
Q.1	(a) (b)	State the functions of builder mechanism on Ring frame. Explain how these functions are achieved on a Modern ring frame with neat sketches. Compare different wet doubling processes with neat sketches. Which is better? Why?	07 07	
Q.2	(a)	What is "Balloon Collapse"? Which factors contribute to it on a Ring frame? State different ways adopted to minimize it on Modern ring frame.	07	
	(b)	Discuss the effect of following on double yarn characteristics: 1. Level of twist 2. Direction of twist 3. Amount of tension OR	07	
	(b)		07	
Q.3	(a)	State the important characteristics of a high speed ring. Describe the specific features of a modern ring to meet high productivity levels. Write on "Orbit" ring.	07	
	(b)	Derive the relation for optimum traveler weight on a ring frame. OR	07	
Q.3	(a) (b)	Discuss latest features incorporated with modern spindles on ring frame. Calculate the Spindle speed, TPM and production/spindle in grams from the following particulars of ring frame: Tin roller rpm = 900 Tin roller pulley diameter = 10.6 " Spindle wharve diameter = 1 " Front roller rpm = 130 Front roller diameter = 2.70 cm Efficiency = 90% Working hours = 8 Nm = 55	07 07	
Q.4	(a)	State the objects of reeling and seven lea reeling method. Discuss the importance of waste preparation and fibre recovery system.	07	
	(b)	Discuss spindle drive in detail with neat sketches. OR	07	
Q.4	(a)	What do you mean by Z/Z/S yarn and Z/S/Z yarn. Discuss the production process of commercial sewing threads.	07	
	(b)	Write short note on production of grandrelle, fish net and lace yarn.	07	

Q.5 (a)		State methods of winding. Which method is popular in the industry for	07
		medium and fine counts? Why?	
	(b)	What are the objects and applications of doubling?	07
		OR	
Q.5	(a)	Elaborately explain spinning triangle and its effect on yarn quality.	07
	(b)	What is "slough off"? What precautions are taken to prevent it while	07
		laying main and cross windings on a bobbin, on a modern ring frame?	
