Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-V • EXAMINATION – WINTER 2013

	•	Code: 152904 Date: 02-12-2013	
Su	bject	Name: Modern Yarn Production	
		0.30 am - 01.00 pm Total Marks: 70	
Inst	tructio		
	2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a)	Write objects of Rotor spinning. Also show passage of material in Rotor spinning machine.  Compare yarn characteristics of Rotor and Ring spinning.	07 07
	<b>(b)</b>		
Q.2	(a) (b)	What do you mean by Friction spinning? Discuss merits and limitations of it.  With a neat diagram, explain in brief about DREF- I & DREF-II.  OR	07 07
	<b>(b)</b>	Explain construction and working of Air jet spinning machine with suitable diagram.	07
Q.3	(a) (b)	What is texturising? Write advantages of Textured yarns. Write in brief about 1) Heaters & 2) False twist units used in False twist texturising.	07 07
		OR	
Q.3	(a) (b)	Discuss in detail about effect of variables on False twist textured yarn quality. Describe principle of Air jet texturing. Also give classification of Air textured yarns.	07 07
Q.4	(a) (b)	Explain in detail about Modern developments in Air jet texturing.  Describe Edge Crimping Process with suitable diagram.  OR	07 07
Q.4	(a) (b)	Write in detail about Knit-de-knit texturising process.  What is Compact Spinning? How it helps to improve yarn quality? Enlist different types of Compact spinning systems.	07 07
Q.5	(a)	Give the principle of Stretch-Breaking. Draw a schematic diagram of the Turbo Stapler.	07
	<b>(b)</b>	Describe with neat diagram, Courtaulds design of Tow-to-Top converter.  OR	07
Q.5	(a)	Enlist the factors contributing nep formation and smoky yarn during processing of manmade fibers and its blends in Ring spinning.	07
	<b>(b)</b>	Discuss in brief about Tow-to-yarn spinning.	<b>07</b>

\*\*\*\*\*