Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – SUMMER • 2015

Subject Code: 152904 Date: 07/05/2015

Subject Name: Modern Yarn Production

Time: 02.30pm-05.00pm Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	With a neat sketch explain the passage of material in Rotor spinning process.	**07**
	(b)	Discuss the operating principle of wrap spinning process.	**07**
Q.2	**(a)**	Explain the process followed in spinning yarn in Murata jet spinning machine.	**07**
	(b)	Explain the Friction spinning principle with necessary diagrams.	**07**
		OR	
	(b)	Explain how yarn twist is imparted in Friction spinning and their effect on fine and course count yarn.	**07**
Q.3	**(a)**	What is back doubling? Derive the equation of back doubling.	**07**
	(b)	Write a short note on rotor used in Open End spinning machine.	**07**
		OR	
Q.3	**(a)**	What is axial and tangential fibre movement in Open End spinning? Explain.	**07**
	(b)	Write a short note on different types of navel used in Open End spinning machine.	**07**
Q.4	**(a)**	With a neat sketch explain the principle of False twist texturing method.	**07**
	(b)	Explain the production process of modified stretch yarn used in texturing.	**07**
		OR	
Q.4	**(a)**	Explain bush type and stacked disc type friction twisting used in texturing.	**07**
	(b)	What is draw texturing? Give the difference between simultaneous and sequential draw texturing process.	**07**
Q.5	**(a)**	Which principle is used to control minimum fibre length during the processing of tow? Explain.	**07**
	(b)	Explain the principle of Pacific convertor.	**07**
		OR	
Q.5	**(a)**	Which principle is used in turbo stapler machine? With a neat sketch explain turbo stapler machine.	**07**
	(b)	Explain the principle of tow to yarn conversion process.	**07**

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