Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII EXAMINATION – SUMMER 2016

Subject Code:172901 **Date:12/05/2016**

Subject Name:Modern Spinning Technology

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.**

Q.1	**(a)**	Give classification of structure of Air jet spun yarn with neat sketch. Hence discuss how air jet spun yarn with higher strength can be produced.	**07**
	(b)	'Rotor spinning is suitable only for coarser counts'. Justify the statement.	**07**
Q.2	**(a)**	Describe the important features of automation at rotor spinning machine.	**07**
	(b)	Discuss the problem of rotor deposit and its effect in rotor spinning briefly.	**07**
		OR	
	(b)	Compare important properties of yarn obtained by Air jet spinning with that of Ring frame and Rotor yarns.	**07**
Q.3	**(a)**	With a neat sketch of nozzle, explain the mechanism of yarn formation inside nozzle in Air jet spinning.	**07**
	(b)	With a neat sketch describe the working of Vortex spinning .	**07**
		OR	
Q.3	**(a)**	Describe Wrap spinning system with neat sketch. Also draw and explain the yarn structure obtained by wrap spinning.	**09**
	(b)	Compare Airjet spinning and Vortex spinning system.	**05**
Q.4	**(a)**	With a neat sketch describe DREF – I spinning system.	**07**
	(b)	State the major advantages and disadvantages of Friction spinning.	**07**
		OR	
Q.4	**(a)**	With a neat sketch describe DREF – III spinning system.	**07**
	(b)	Describe the process of Siro spinning briefly with neat sketch. Also state the applications of Siro spun yarn.	**07**
Q.5	**(a)**	Explain what is 'Compact spinning'. Hence discuss its effect on yarn properties.	**07**
	(b)	With neat sketch, describe a twistless spinning system working with permanent adhesion.	**07**
		OR	
Q.5	**(a)**	Describe ROCOS spinning system with neat sketch.	**07**
	(b)	With neat sketch, describe a twistless spinning system working with temporary adhesion.	**07**

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