Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII EXAMINATION – WINTER 2015

Subject Code: 172901 **Date:11/12/2015**

Subject Name: Modern Spinning Technology

Time: 10:30am to 1:00pm **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 principle of DREF- III spinning system.	**07**
	(b)	Discuss the advantages and disadvantages of friction spinning system.	**07**
Q.2	**(a)**	With a neat sketch compare the yarn structure obtained by Air jet spinning and Vortex Spinning. Also state their important properties.	**07**
	(b)	Discuss in detail the limitations of Air jet spinning system.	**07**
		OR	
	(b)	Discuss in detail the mechanism of yarn formation of fasciated yarn in nozzle.	**07**
Q.3	**(a)**	With the help of neat sketches, discuss in detail integration of fibers into yarn structure inside spin box of rotor spinning machine.	**09**
	(b)	With a neat sketch describe the structure of rotor yarn.	**05**
		OR	
Q.3	**(a)**	Describe the features of modern rotor spinning machine.	**09**
	(b)	Discuss major economic advantages offered by rotor spinning as compared to Ring spinning system.	**05**
Q.4	**(a)**	With a neat sketch describe Siro spinning system .	**08**
	(b)	State the advantages and disadvantages of Siro spinning.	**06**
		OR	
Q.4	**(a)**	With a neat sketch explain the Parafill spinning system.	**08**
	(b)	State the advantages and disadvantages of Wrap spinning system.	**06**
Q.5	**(a)**	Explain any twistless spinning system working on principle of permanent adhesion with neat sketch.	**07**
	(b)	Describe Comfor spinning system with neat sketch.	**07**
		OR	
Q.5	**(a)**	Describe Elite spinning with neat sketch.	**07**
	(b)	Explain the term Compact Spinning. Discuss in detail its effect on various yarn properties.	**07**

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