Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV • EXAMINATION – WINTER • 2014

Subject Code: 142901 **Date: 22-12-2014**

Subject Name: Yarn Manufacturing- II

Time: 02:30 pm - 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)**	Enlist the objects of draw frame and explain importance of doubling and drafting in spinning process	**07**
	(b)	Explain in brief, importance of trailing and leading hooks in preparation of comber lap.	**07**
Q.2	**(a)**	Discuss the Objects of Speed frame and show passage for conversion of sliver into roving form.	**07**
	(b)	Explain different parameters influencing combing operation.	**07**
		OR	
	(b)	How twisting and winding of roving are carried out on speed frame machine, explain with suitable diagram.	**07**
Q.3	**(a)**	Enlist the merits and demerits of dead weight. spring and pneumatic loading arrangement in draw frame drafting system.	**07**
	(b)	With diagram, Explain ideal and actual drafting with its functions.	**07**
		OR	
Q.3	**(a)**	Discuss briefly the problems of (I) drafting wave and (II) roller nip movement.	**07**
	(b)	With diagram, explain working principle of open loop system used on draw frame machine with its importance.	**07**
Q.4	**(a)**	Discuss in brief noil theory of Gegauff for forward feed and backward feed of comber.	**07**
	(b)	With neat sketch, explain Super lap machine.	**07**
		OR	
Q.4	**(a)**	Explain with neat sketch arrangement of bobbin, flyer and flyer assembly.	**07**
	(b)	What are flyer lead and bobbin lead machines in speed frame? Discuss their advantages and disadvantages.	**07**
Q.5	**(a)**	For comber, explain - I) Nipper Assembly & II) The Cylinder combs	**07**
	(b)	Write short note on the modern developments in Comber.	**07**
		OR	
Q.5	**(a)**	State the objects of Builder motion and explain, how to achieve these on speed Frame.	**07**
	(b)	Following data refers to speed frame: Flyer speed = 1200 rpm, Sliver hank = 0.17, Roving hank = 1.65, T.M. = 1.2, Efficiency = 82 % Find total draft and Production in Kg/shift/spindle.	**07**

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