Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-III Examination-Dec.-2011

Subject code: 132903 **Date: 15/12/2011**

Subject Name: Weaving-I

Time: 2.30 pm -5.00 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 traverse motion on winding machines. Write on grooved drum type in short.	**07**
	(b)	With a neat sketch explain loom drive in detail. Calculate the speed of the bottom shaft and tappet shaft for a loom with 180 RPM speed and weave repeating on 4 picks.	**07**
Q.2	**(a)**	Write a short note on yarn clearers.	**07**
	(b)	Give answers in short: (i) Why winding speed is constant on drum driven packages? (ii) What is multiplicative tension? Calculate tension T2 if incoming tension T1 is 13 g, coefficient of friction is 0.24 and wrap angle is 32 degrees.	**07**
		OR	
	(b)	Give answers in short (i) Differentiate between random and precision wind. (ii) Write on different wound packages.	**07**
Q.3		Write in detail on yarn tensioners as used on winding machines.	**14**
		OR	
Q.3		Write short note on following: (i) Pirn Winding (ii) Package defects at winding	**14**
Q.4	**(a)**	With diagram explain loom timing. Why dwell in the shedding is necessary?	**07**
	(b)	Write in detail on shuttle flight control.	**07**
		OR	
Q.4	**(a)**	With neat sketch explain working of side weft fork stop motion.	**10**
	(b)	What changes are required to be made while designing shedding tappet for other than plain weave?	**04**
Q.5		With a neat sketch explain working of cone over pick mechanism.	**14**
		OR	
Q.5	**(a)**	Explain in short negative let off motion.	**10**
	(b)	Write briefly on heald reversing mechanism.	**04**

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