Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2013

Subject code: 712505N **Date: 17-06-2013**

Subject Name: Texturing Technology

Time: 10.30 am – 01.00 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)**	State importance of frictional disc developments used in twisting unit. Briefly write a note on creel design.	**07**
	(b)	Calculate denier of textured yarn from following. Denier of fed yarn-160/55, draw ratio-1.55, overfeed-15%, add on of oil-2.3%	**07**
Q.2	**(a)**	What are the advantages of draw texturing process over other texturing process? Also with neat sketch explain working of sequential draw texturing process.	**07**
	(b)	Discuss texturing process by torque texturing mechaniques.	**07**
		OR	
	(b)	Explain thermodynamics of texturing process based on heat setting and texture development.	**07**
Q.3	**(a)**	Write shortly on: Textured stabilization, and Thermal transitions.	**07**
	(b)	What modifications are adopted in texturing machine design to increase production speed?	**07**
		OR	
Q.3	**(a)**	Which methods of texturing are used for winter outer wear, menôs wear and carpet yarns? Why?	**07**
	(b)	Write a note on primary and secondary heater process parameter and development in heating medium.	**07**
Q.4		With neat sketch explain principle of air jet texturing involved the tangling effect given by high turbulent air flow acting on filament feed yarn. State the effects of molecular structure variables on Tg.	**14**
		OR	
Q.4		What are the prime purposes of filament yarn texturing? Classify the texturing processes based on types of texturing yarn with respective applications.	**14**
Q.5	**(a)**	Write a note on dynafil M tester.	**07**
	(b)	Discuss the feed material characteristics which affect the textured yarn properties.	**07**
		OR	
Q.5	**(a)**	List out parameters of textured yarns to understand its behavior in fabric. Discuss the methods and tester use to test it.	**07**
	(b)	What are the requirements of spin finish for texturing process? Explain.	**07**

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