Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E –Ist SEMESTER–EXAMINATION – JULY- 2012

Subject code: 712505N **Date: 11/07/2012**

Subject Name: Texturing Technology

Time: 2:30 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		Write note on (i) Baffles (ii) Ringtex friction texturing process (iii)High temperature textured polyester dyeing	**14**
Q.2	**(a)**	Explain the air jet texturing principle involved the tangling effect by high turbulent air flow acting on feed filament yarn.	**07**
	(b)	What are the main functions of spin finish on textured yarn? Discuss.	**07**
		OR	
	(b)	With neat sketch explain working of simultaneous and sequential draw texturing process.	**07**
Q.3	**(a)**	Define and discuss (i) Coercive torque (ii) Residual twist (iii)Air jet textured yarn characteristics	**07**
	(b)	Write a note on dynafil M tester.	**07**
		OR	
Q.3	**(a)**	Elaborately explain the thermodynamics of texturing process.	**07**
	(b)	Why physical bulk is an important property in air jet textured yarn? Discuss various methods to measure it.	**07**
Q.4	**(a)**	What is the effect of molecular structure variables on Tg?	**07**
	(b)	Define terminology: (i) Crimpiness stability (ii) Extensibility (iii)Linear density of textured yarn Tt	**07**
		OR	
Q.4	**(a)**	Which parameters should considered to get uniform dyeing on textured polyester yarn?	**07**
Q.4	**(b)**	With neat sketch explain working of any 4 air jet texturing nozzles.	**07**
Q.5	**(a)**	Write shortly on textured stabilization and thermal transition.	**07**
	(b)	List out and discuss any three feed material characteristics which affect the textured yarn properties.	**07**
		OR	
Q.5	**(a)**	What are bicomponent and biconstitute fibre system? Explain the principle of both systems.	**07**
	(b)	What is the main function of heat setting chamber? Also discuss different types of it.	**07**

****