Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER–I(New course)• EXAMINATION – WINTER- 2015

Subject Code: 2712509 **Date: 04/01/2016**

Subject Name: Textured Yarn Technology

Time:2:30 pm to 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)**	What are the prime purposes of filament yarn texturing? Classify the texturing processes based on types of texturing yarn with respective applications.	**07**
	(b)	Define LOY, MOY, POY, and HOY. What are the effects of yarn heating on yarn crimp in primary texturing zone?	**07**
Q.2	**(a)**	Differentiate between simultaneous and sequential false twist texturing process with a neat sketch and its merits and demerits	**07**
	(b)	Does increase in twist level affect yarn tension in false twist texturing? Justify your answer.	**07**
		OR	
	(b)	Write short notes on (i) P.U.R Discs (ii) Pin texturing	**07**
Q3.	**(a)**	Discuss in detail about the friction disc materials	**07**
	(b)	Explain the HT heater used in draw texturing. Also mention advantages and disadvantages over the conventional vapor phase heater.	**07**
		OR	
Q3.	**(a)**	Discuss the design parameters of friction disc system that will affect texturing performance.	**07**
	(b)	Write a note on primary and secondary heater process parameter and development in heating medium.	**07**
Q4.	**(a)**	Discuss the feed material characteristics which affect the textured yarn properties.	**07**
	(b)	What are the main functions of spin finish in texturing process? Discuss.	**07**
		OR	
Q4.	**(a)**	Which methods of texturing are used for winter outer wear, men's socks and carpet yarns? Why?	**07**
	(b)	Write a short note on creel design and its management on texturing machine.	**07**
Q5.	**(a)**	State the air mingling yarn channel process factors. Also explain working of Heberlein jet.	**07**
	(b)	Discuss the friction textured yarn defects.	**07**
		OR	
Q5.	**(a)**	Explain different test methods to measure physical bulk of air jet textured yarn	**07**
	(b)	With neat sketch explain working of any 4 air jet texturing nozzles.	**07**

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