Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject code: 712505N Date: 24-06-2014 **Subject Name: Texturising Technology** 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 Discuss the physics involved in the tangling effect generated by high turbulent 14 flow of air acting on feed yarn in air jet texturising process. Compare functions of sub sections of simultaneous and sequential false twist **Q.2 07** (a) texturing process. õIncrease in twist level affects yarn tension in false twist texturising.ö Explain. 07 (b) (b) Explain the texturising process stages by torque mechanic. 07 Q.3Discuss the factors affecting loop formation in air jet texturing. 07 (a) Briefly discuss the feed material characteristic which affects the textured yarn **(b)** 07 properties. OR **Q.3** Why the main inside behavior of air jet depends on nozzle geometrical **07** configuration? Discuss the first order and second order thermal transitions of texturising 07 process. How to measure the air jet textured yarn stability. Discuss Heberlein and **Q.4** 07 Acarøs instability concept. Write a note on bicomponent texturising process. 07 (b) Explain different test methods to measure physical bulk of air jet textured yarn. **Q.4** (a) 07 With neat sketch explain working of any four air jet texturing nozzles. 07 **(b) Q.5** Discuss the important developments in frictional disc used in twisting unit. 07 (a) Define LOY, MOY, POY, and HOY. What are the effects of varn heating on **(b) 07** yarn crimp in primary texturing zone? OR What are the advantages and disadvantages of conventional vapour phase **Q.5** (a) 07 heater? Suggest the remedies to overcome the disadvantages of it. Write a note on texturing process package build specifications. **07** 

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