

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER- I • EXAMINATION – WINTER 2014

Subject Code: 2712509**Date: 12/01/ 2015****Subject Name: Textured Yarn Technology****Time: 02:30 p.m. to 05:00 p.m.****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) Explain the principle of intermingling process. Which factors affect the intermingling process? How? **14**
- (b) Show zone wise function and process variables of modern air jet texturing process. **07**
- Q.2** (a) Write shortly on BCF-draw texturing machine **07**
- (b) Discuss the texturing process by torque change of filament on twist hysteresis curve. **07**
- OR**
- (b) Explain heat setting and texture development with stress and strain energy Es. **07**
- Q.3** Elaborately discuss parts of converging and diverging nozzles with further design developments in nozzle. **14**
- OR**
- Q.3** Explain the effect of air pressure, over feed %, texturing speed and type of material on air jet texturing yarn quality. **14**
- Q.4** (a) With neat sketch explain working of simultaneous false twist texturing process. **07**
- (b) What are the merits of high temperature heaters over the conventional vapour phase heater? **07**
- OR**
- Q.4** (a) Which are the different types of hard discs used in draw texturing industry? List out the advantages and disadvantages each type. **07**
- (b) What is surging in draw texturing process? What are the causes of surging? **07**
- Q.5** Write a note on testing of instability % and physical bulk % of air jet textured yarn. **14**
- OR**
- Q.5** How to measure boil water shrinkage %, spin finish by oil extraction method and crimp contraction force by textured yarn tester. **14**
