GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013

Subject code: 712505N   **Date: 06-01-2014**
Subject Name: Texturising 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)** "The main behavior of air jet inside depends upon the nozzle geometrical configuration" explain and derive. **14**

Q.2 **(a)** Explain the HT heater used in draw texturing. Also mention advantages and disadvantages over the conventional vapour phase heater. **07**
   (b) Write a note on dynafil M tester. **07**
OR
   (b) Discuss the bicomponent and biconstitute texturing techniques with advantages. **07**

Q.3 **(a)** What are the main functions of spin finish in texturising process? Discuss. **07**
   (b) What are the prime purposes of filament yarn texturing? Classify the processes based on types of texturising yarn applications. **07**
OR
Q.3 **(a)** Why draw texturing process is economically more advantageous than other texturing processes? Also explain working of sequential draw texturing process. **07**
   (b) Elaborately explain the effects of molecular structure variables on Tg. and thermal transitions. **07**

Q.4 **(a)** Discuss the air jet texturising process principle involved feed yarn tangling effect. **07**
   (b) With neat sketch explain core effect air jet texturising process. **07**
OR
Q.4 **(a)** What is the role of coanada bar and water in air jet texturising process? **07**
   (b) Discuss heat setting and texture development with stress and strain energy Es. **07**

Q.5 **(a)** List out and explain the factors affect stretch characteristics of false twist textured yarn. **07**
   (b) Give the classification friction disc type. Which one is most frequently use today and why? **07**
OR
Q.5 **(a)** Is increase in twist level affect yarn tension in false twist texturising? Justify your answer. **07**
   (b) Write a note on creel design and its management in texturing machine. **07**

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