

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Subject Code: 2152907**Date: 14/12/2015****Subject Name: Man Made Fibre Technology****Time: 10:30am to 1:00pm****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) Give Yang's Classification of manufactured fibres. 2
 (b) Write in brief about polymers as Rubbers. 4
 (c) Describe with neat sketch Turbo Stapler. 8
- Q.2** (a) Discuss the role of Spin Finish. 5
 (b) Discuss heat setting behavior of Polyamide and Polyester fibres. 4
 (c) Discuss the steps involved in the production of electro-conductive nylon 6 filaments. 5
- OR**
- (c) Write short note on Super micro filament yarns by conjugated bicomponent yarn spinning. 5
- Q.3** (a) Discuss the production of nylon for making ultra-deep dyeable yarns when dyed with acid dyes. 7
 (b) Write in brief about antistatic polyester yarns. 3
 (c) The TPA process route presents greater difficulties compared with the DMT process – Give reasons. 4
- OR**
- Q.3** (a) Discuss in brief chemical modification of nylon 6 by poly(acrylamide) during polymerization. 4
 (b) Discuss in brief about fibres with microvoids and microcrates. 3
 (c) Discuss manufacturing process of Glass fibre. 7
- Q.4** (a) Discuss different types of Twisting units used in False twist texturing. 07
 (b) Write short note on – (1) Contact Heaters & (2) Contactless Heaters. 07
- OR**
- Q.4** (a) With neat sketch, explain sequential and simultaneous Draw texturing process. 07
 (b) Discuss effect of process and material variables on False twist Textured yarn quality. 07
- Q.5** (a) Discuss modern developments in Air jet texturing. 07
 (b) Write short note on – Gear Crimping process. 07
- OR**
- Q.5** (a) With neat sketch, discuss working of Stuffer box texturing. 07
 (b) Explain principle of Edge crimping process with suitable diagram. 07
