

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2016

Subject Code:2152907

Date:17/05/2016

Subject Name:Man Made Fibre Technology

Time:02:30 PM to 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** (a) Discuss in brief production of the fibre-forming polymer. **02**
(b) Write in brief about Thermal transitions. **05**
(c) Describe with neat sketch Courtauld's design Tow-to-Top Converter. **07**
- Q.2** (a) Enlist the desirable properties of a Spin finish. **04**
(b) Discuss in brief the mechanism of Permanent set. **03**
(c) Discuss production of nylon for making ultra-deep dyeable yarns when dyed with acid dyes. **07**
- OR
- (b) Write a short note on fibres with non-circular cross-section & hollow fibres. **07**
- Q.3** (a) Discuss the steps involved in the production of electro-conductive nylon-6 filaments. **04**
(b) Give the routes by which polyester & polyamide fibres can be made flame retardant. **03**
(c) Discuss in brief about Aramid fibres. **07**
- OR
- Q.3** (a) Discuss in brief chemical modification of nylon 6 by poly(ethylene glycol) during polymerization. **04**
(b) Discuss in brief about fibres with microvoids & microcrates. **03**
(c) Discuss the applications of Carbon fibres. **07**
- Q.4** (a) Give classification of textured yarns. **03**
(b) State the advantages of textured yarns. **04**
(c) Discuss in brief about Contact heaters. **07**
- OR
- Q.4** (a) Explain in brief about Draw texturing. **07**
(b) Discuss the developments in Air Jet Texturing. **07**
- Q.5** (a) Explain principle of False twist texturing. **07**
(b) Explain in detail about Gear Crimping. **07**
- OR
- Q.5** (a) Explain in detail about Stuffer box crimping. **07**
(b) Explain in detail about Knit-de-Knit texturing process. **07**
