

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2152907****Date: 19/06/2019****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.

MARKS

- Q.1** (a) Describe important properties of man made fibres which has made it very popular. **03**
 (b) Discuss in brief about thermal transition. **04**
 (c) With a neat sketch describe process of air jet texturing. **07**
- Q.2** (a) Explain crystallinity and orientation in manmade fibres. **03**
 (b) Discuss briefly about fibres with noncircular cross section and hollow fibres. **04**
 (c) With a neat sketch describe turbo stapler. **07**
- OR**
- (c) Describe super micro filaments and its production technique. **07**
- Q.3** (a) Mention different routes through which polyester can be made flame retardant. **03**
 (b) Discuss briefly about fibres with microvoids and microcraters. **04**
 (c) List out various methods of spin finish and describe any two methods briefly with neat sketch. **07**
- OR**
- Q.3** (a) Describe method to produce antistatic nylon. **03**
 (b) Describe role of spin finish and its composition. **04**
 (c) What is heat setting and why it is carried out ? **07**
 Hence describe temporary sett.
 Also state its limitation.
- Q.4** (a) State the types of aramid fibres. **03**
 Hence state their applications.
 (b) Write a short note on metal fibres. **04**
 (c) Describe briefly manufacturing process of tyre cords. **07**
- OR**
- Q.4** (a) Describe applications of kynol fibres. **03**
 (b) Write a short note on carbon fibres. **04**
 (c) State different varieties of glass fibres. **07**
 Discuss important properties and applications of glass fibres.
- Q.5** (a) State the objects of texturing. **03**
 (b) Describe gear crimping briefly. **04**
 (c) Describe false twist texturing process with neat sketch. **07**
- OR**
- Q.5** (a) Describe briefly defects in false twist textured yarn. **03**
 (b) Describe important process variables in false twist texturing. **04**
 (c) With a neat sketch describe stuffer box texturing. **07**
