

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– V (New) EXAMINATION – WINTER 2019****Subject Code: 2152907****Date: 29/11/2019****Subject Name: Man Made Fibre Technology****Time: 10:30 AM TO 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.

		MARKS
Q.1	(a) What are the advantages of man-made fibres?	03
	(b) State and write briefly about the various high performance fibres.	04
	(c) Write in detail about the thermal transition.	07
Q.2	(a) Define texturing.	03
	(b) Which are the different tow to top conversion systems?	04
	(c) How is spin finish applied? Write in detail about the application techniques.	07
OR		
	(c) Write in detail about the polyester yarns with microgrooves, microvoids and microcraters.	07
Q.3	(a) Classify the manufactured fibres.	03
	(b) Write briefly about the nature of set.	04
	(c) How is the production of tyre cords carried out? Write in detail.	07
OR		
Q.3	(a) What is molecular orientation and crystallinity in fibres.	03
	(b) State the unique properties of asbestos fibres.	04
	(c) Write in detail about the manufacturing process of glass fibres.	07
Q.4	(a) How are stretched and modified stretched yarns produced by conventional methods?	03
	(b) What are the unique properties of basofil fibres?	04
	(c) Write in detail about the draw texturing.	07
OR		
Q.4	(a) Write briefly about the principle of loop formations formation in air-jet texturing.	03
	(b) What are the advantages of draw textured yarns over conventional false twist textured yarns?	04
	(c) State and explain the process variables in air-jet texturing.	07
Q.5	(a) Give the classification of yarns in air-jet texturing.	03
	(b) What is edge-crimping?	04
	(c) Write in detail about the recent developments in texturing.	07
OR		
Q.5	(a) What is knit-de-knit texturing?	03
	(b) Write briefly about chemical texturing.	04
	(c) State and write briefly about the latest developments in the field of man-made fibres.	07
