

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 2132901****Date: 28/11/2019****Subject Name: Textile Fibres****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
<b>Q.1</b>	(a) Define: Monomer, Polymer & DP.	<b>03</b>
	(b) Explain the concept of crystallinity and orientation.	<b>04</b>
	(c) Discuss about the requirements for fibre formation.	<b>07</b>
<b>Q.2</b>	(a) Give the classification of textile fibres.	<b>03</b>
	(b) Write briefly about the cotton fibre.	<b>04</b>
	(c) Discuss the properties and manufacturing process of viscose rayon fibre.	<b>07</b>
	<b>OR</b>	
	(c) Explain the melt spinning process with a neat sketch.	<b>07</b>
<b>Q.3</b>	(a) State the unique properties of man-made fibres.	<b>03</b>
	(b) What is addition and condensation polymerization?	<b>04</b>
	(c) Explain the wet spinning process with a neat sketch.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) State the advantages of high speed spinning.	<b>03</b>
	(b) Write briefly about the sisal fibres.	<b>04</b>
	(c) Explain various steps involved in production of triacetate fibre.	<b>07</b>
<b>Q.4</b>	(a) Draw a neat sketch of the dry spinning machine.	<b>03</b>
	(b) What is degumming of silk?	<b>04</b>
	(c) Write in detail about the wool fibre.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) What is spin finish?	<b>03</b>
	(b) State the properties of Alpaca animal fibre.	<b>04</b>
	(c) Write a short note on nylon fibre.	<b>07</b>
<b>Q.5</b>	(a) Write briefly about the pineapple fibre.	<b>03</b>
	(b) Write briefly about the polyurethane fibres.	<b>04</b>
	(c) Discuss the physical & chemical properties of polyester fibre.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Draw the flow diagram of polypropylene filament yarn production.	<b>03</b>
	(b) Write briefly on the bast fibres.	<b>04</b>
	(c) Discuss in detail about the properties and applications of the latest textile fibres.	<b>07</b>

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