

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2132901****Date: 04/06/2019****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 following: i) Staple ii) Filament iii) Yarn	<b>03</b>
	(b) Write in short on fibre length and values of same for different fibres.	<b>04</b>
	(c) Give a detailed classification of textile fibres with chemical names wherever possible.	<b>07</b>
<b>Q.2</b>	(a) What is meant by fineness of the fibre? Provide values for fibres from natural origin.	<b>03</b>
	(b) Give differences between addition and condensation polymerization.	<b>04</b>
	(c) Write a note on desirable properties of textile fibers.	<b>07</b>
	<b>OR</b>	
	(c) Write on advantages and disadvantages of natural fibres.	<b>07</b>
<b>Q.3</b>	(a) Define: Mature, Immature and Dead cotton fiber.	<b>03</b>
	(b) Discuss on crystalline and amorphous region of fiber.	<b>04</b>
	(c) Write a note on BT and organic cotton fiber.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Give differences between melt, dry and wet spinning.	<b>03</b>
	(b) Briefly write on electrospinning and nano fibres.	<b>04</b>
	(c) Write in detail on different types of wool.	<b>07</b>
<b>Q.4</b>	(a) Which process parameters are important during production of viscose fibres?	<b>03</b>
	(b) State advantages and disadvantages of manmade fibers.	<b>04</b>
	(c) Explain the cultivation process of silk fiber.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Write a note on application of jute fiber.	<b>03</b>
	(b) Differentiate between viscose rayon, polynosic and HWM rayons.	<b>04</b>
	(c) Explain the manufacturing process of nylon fiber.	<b>07</b>
<b>Q.5</b>	(a) Write only the chemical reaction for two types of polyamide fibres.	<b>03</b>
	(b) Give physical and chemical properties of polyester fiber.	<b>04</b>
	(c) Explain the manufacturing of polyester fiber.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Write a note on hemp fiber.	<b>03</b>
	(b) Give physical and chemical properties of cotton fiber.	<b>04</b>
	(c) Explain fine structure of cotton fiber in detail.	<b>07</b>

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