

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 3132906****Date: 30/11/2019****Subject Name: Textile Materials****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) Draw only morphological structure of cotton fibre.	<b>03</b>
(b) Classify natural fibres with suitable examples.	<b>04</b>
(c) Describe the essential properties of Textile fibre in detail.	<b>07</b>
<b>Q.2</b> (a) Draw the cross-section shape for polyester, acrylic and nylon.	<b>03</b>
(b) Explain physical properties of wool.	<b>04</b>
(c) How degumming of silk is being carried out?	<b>07</b>
<b>OR</b>	
(c) State the growth, cultivation and production of linen fibre.	<b>07</b>
<b>Q.3</b> (a) What is density and degree of polymerization of viscose rayon? Draw cross sectional shape of viscose rayon.	<b>03</b>
(b) Describe the properties of jute fibre.	<b>04</b>
(c) Explain in detail about different steps involved in Manufacturing of Viscose rayon with neat diagram.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Enlist the fibres produce by melt spinning.	<b>03</b>
(b) Discuss the growth and cultivation of Ramie fibres.	<b>04</b>
(c) Write note on types of commercially available cotton.	<b>07</b>
<b>Q.4</b> (a) How cotton is cultivated?	<b>03</b>
(b) Enlist various applications of coir fibre.	<b>04</b>
(c) State the advantages of TPA over DMT.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Explain in detail about hemp fibre.	<b>03</b>
(b) Give the drawing process of Nylon 6, 6 fibre.	<b>04</b>
(c) How spinning of viscose rayon carried out? Explain with neat sketch.	<b>07</b>
<b>Q.5</b> (a) Enlist various applications of sisal fibre.	<b>03</b>
(b) Differentiate between viscose rayon, polynosic and HWM rayons	<b>04</b>
(c) Describe physical and chemical properties of cotton fibre.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Write note on Tencel fibre	<b>03</b>
(b) Discuss the various properties of Cupraammonium rayon.	<b>04</b>
(c) Discuss in detail about VK tube method for Nylon fibre.	<b>07</b>

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