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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
Q.1	(a) Draw only morphological structure of cotton fibre.	03
	(b) Classify natural fibres with suitable examples.	04
	(c) Describe the essential properties of Textile fibre in detail.	07
Q.2	(a) Draw the cross-section shape for polyester, acrylic and nylon.	03
	(b) Explain physical properties of wool.	04
	(c) How degumming of silk is being carried out?	07
	OR	
	(c) State the growth, cultivation and production of linen fibre.	07
Q.3	(a) What is density and degree of polymerization of viscose rayon? Draw cross sectional shape of viscose rayon.	03
	(b) Describe the properties of jute fibre.	04
	(c) Explain in detail about different steps involved in Manufacturing of Viscose rayon with neat diagram.	07
	OR	
Q.3	(a) Enlist the fibres produce by melt spinning.	03
	(b) Discuss the growth and cultivation of Ramie fibres.	04
	(c) Write note on types of commercially available cotton.	07
Q.4	(a) How cotton is cultivated?	03
	(b) Enlist various applications of coir fibre.	04
	(c) State the advantages of TPA over DMT.	07
	OR	
Q.4	(a) Explain in detail about hemp fibre.	03
	(b) Give the drawing process of Nylon 6, 6 fibre.	04
	(c) How spinning of viscose rayon carried out? Explain with neat sketch.	07
Q.5	(a) Enlist various applications of sisal fibre.	03
	(b) Differentiate between viscose rayon, polynosic and HWM rayons	04
	(c) Describe physical and chemical properties of cotton fibre.	07
	OR	
Q.5	(a) Write note on Tencel fibre	03
	(b) Discuss the various properties of Cupraammonium rayon.	04
	(c) Discuss in detail about VK tube method for Nylon fibre.	07
