Seat No.: Enroln	nent No
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 2016

	•	Code:2152603 Date:06/05/26 Nome:Textile & Metal Beinforcement of Electomore	016
Ti	-	Name:Textile & Metal Reinforcement of Elastomers 2:30 PM to 05:00 PM Total Marks	s: 70
1115	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	Ansv	ver the following	
	(a)	Give the difference between natural fibres & synthetic fibres.	(04)
	(b)	What do you mean by Composites? List the application of Rubber – Textile composite products with their advantages.	(03)
	(c)	Explain in detail about different methods of Spinning.	(07)
Q.2	(a)	What are the Industrial Textiles? Write its application & its key requirements for Sports & Leisure field.	(07)
	(b)	Write the applications & properties of Teflon. OR	(07)
	(b)	Discuss the manufacturing process of Cotton Fibre.	(07)
Q.3	(a)	List the finishing operations carried out after spinning of the fibre.	(03)
	(b)	Discuss the effect of different variables on bond strength.	(05)
	(c)	Show the classification of fibre with chart. OR	(06)
Q.3	(a)	Write in detail about Possible Causes & Remedies for failure at the rubber cement interface.	(06)
	(b)	Short note on Fibre Morphology.	(08)
Q.4	(a)	Discuss in detail about Melt bonding & Needle-punched Non-Woven fabrics.	(07)
	(b)	Discuss about the Compounding of Short Fibre materials. OR	(07)
Q.4	(a)	Discuss in detail about fibre orientation of short fibres & its effect on properties of rubber compound.	(07)
	(b)	List the Technical advantages, limitation & barriers for Kevlar Aramid Short Fibres.	(07)
Q.5	(a)	Discuss in detail about the effects of rubber compounding ingredients on adhesion.	(07)
	(b)	Short note on "The in Situ Bonding system."	(07)
		OR	
Q.5	(a)	Draw the sketch of single end cord treatment unit.	(07)
	(b)	What do you mean by heat-setting process? Explain the importance of this process.	(07)