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GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER- IV (NEW) EXAMINATION - SUMMER 2015

•		de: 2143903 Date: 01/06	/2015	
Subject Name: Elements of Material Science Fime: 10:30am-1.00pm			Total Marks: 70	
Instructio 1.	Att	tempt all questions.		
2. 3.		ake suitable assumptions wherever necessary. gures to the right indicate full marks.		
Q.1	(a) (b)	- The the thermal conductivity.	07 07	
Q.2	(a) (b)	Explain thermal shock and its remedies.	07 07 07	
	(b)		07	
Q.3	(a) (b)	and left imagnetism with their applications	07 07	
Q.3	(a) (b)	Write a short note on magnetic bubble memory. Explain Giant Magneto Resistance (GMR) with its applications.	07 07	
Q.4	(a) (b)	Explain CMR (Colossal Magneto Resistance). Give the difference between Ferroelectricity and Piezoelectricity. OR	07 07	
Q.4	(a) (b)	What is the difference between Ionic conductivity and Metallic conductivity. Explain conductivity in nanoscale devices.	07 07	
Q.5	(a) (b)	Write a short note of Polymer based OLED. Explain Photoluminescence.	07 07	
Q.5	(a) (b)	What is photoconductivity, explain it in brief. State the effect of Nanoscale on the absorption and transmission spectra of materials	07 07	