Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Subject Name: Electrical and Optical properties of Nanomaterials		Date:29/11/2016 aterials	
Tiı	me: 1 truction 1.	Attempt all questions.  Make suitable assumptions wherever necessary.	Total Marks: 70
Q.1	(a) (b)	Explain Two probe method to measure electric property. Explain Four probe method to measure electric property.	07 07
Q.2	(a) (b)	Describe Transport property of thin film by I-V characteristics Write applications of thin film nano materials.  OR	07 07
	<b>(b)</b>	Write a note on sensitivity of nano thin film.	07
Q.3	(a) (b)	Describe AC conductivity of nano materials.  Describe DC conductivity of nano materials.  OR	07 07
Q.3	(a) (b)	Explain CPP mode to measure I-V characteristics Explain CIP mode to measure I-V characteristics	07 07
Q.4	(a) (b)	Explain grain and grain size effect on transport properties.  Describe microstructure effect on transport properties of thin fit  OR	1m. <b>07</b>
Q.4	(a) (b)	Explain optical properties of nano materials. Write applications of optical nano materials.	07 07
Q.5	(a) (b)	Describe optical properties of nano thin film. Write applications of optical nano thin film.  OR	07 07
Q.5	(a) (b)	Describe particle size effect on optical properties of nano mater Describe temperature effect on optical properties of nano mater	

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