Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Subject Code: 2153904		Date:10/12/2015	
Ti	-	t Name: Elements of Nanoscience and Technology-II 0:30am to 1:00pm ons:	Total Marks: 70
		Attempt all questions.Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Explain Electrophoretic deposition in detail with diagram Explain Electrochemical deposition for nanocoating.	07 07
Q.2	(a) (b)	Write short note on template based nano synthesis. Explain Throw Power and Coalescence temperature	07 07
	(b)	OR Write short note on Funcational Surface and Interface	07
Q.3	(a) (b)	Expain Superhydrophobic surfaces and its types Write short note on Electrospinning for fibre formation	07 07
Q.3	(a) (b)	OR Wrtie short note on Nanopous material and its applications. Wrtie short note on Smart sunglasses and transparent conductin	97 g oxides. 97
Q.4	(a) (b)	Expain Supercritical Fluids. Expalin the surface effect and physical properties of nanomateria	als. 07
Q.4	(a) (b)	OR Write down applications of Supercritical Fuluids. Explain the size and shape effect on the proeprties of materials.	07 07
Q.5	(a) (b)	Explain effect of nanomaterials as a catalyst . Explain term Quantum Confinment and Tunneling in nanomater	07 rial. 07
Q.5	(a) (b)	OR Write a short note on Grain Boundraies in nanomaterials. Expalin nanomembranes and write its applications.	07 07
