Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

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

	•		Date:08/12/2015 Total Marks: 70	
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Q.1	(a) (b)	How many types of nanosensors are there? Describe all types with diagrams. Application of nanotechnology in battery and fuel cells.	07 07	
Q.2	(a) (b)	What is smart material? Explain smart materials in brief with different types. Describe applications of molecular encapsulations.	07 07	
	a >	OR		
	(b)	Explain benefits of nanocatalysts over conventional catalysts.	07	
Q.3	(a)	What do you mean by actuators? Explain with neat diagram for nanotechnological applications.	07	
	(b)	Explain photovoltaic cell and advantages of nanotechnology in photovoltaic cells.	07	
Q.3	(a) (b)	OR What are the advantages of nanotechnology in the field of insecticides? Describe: Nanotechnology in food processing and packaging.		
Q.4	(a)	What is the difference between implant and prosthesis? Also describe implant and prosthesis in brief.	07	
	(b)	Applications of nanorobots in surgery.	07	
0.4		OR	07	
Q.4	(a) (b)	What are the potentials of nanofertilizers? Give tissue engineering applications of nanotechnology.		
Q.5	(a) (b)	Explain benefits of nanoparticles in dentistry and bone substitutes. Describe photodynamic therapy.		
Q.5	(a) (b)	OR Give detailed applications of nanotechnology in modern textiles. By the use of titanium oxide how can we get UV protection in sun-screens?		
