Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY

Su	ıbjec	BE - SEMESTER-V (OLD) - EXAMINATION – SUMMER 2017 t Code: 150301 Date: 27/04/20 t Name: Biomaterials & Implants 02:30 PM to 05:00 PM Total Marks:	
	structi 1. 2.		
Q.1	(a)	Classify different types of materials which are used as biomaterials on the basis	07
		of its applications, properties, advantages & disadvantages.	
	<b>(b)</b>	Write a short note on Standards & Assessments of Bio-Materials.	07
Q.2	(a)	Write a short note on corrosion of metallic implants.	07
	<b>(b)</b>	Define polymerization? Explain condensation polymerization.	07
		OR	
	<b>(b)</b>	Explain various tissue adhesives with their material composition	07
Q.3	(a)	Give details of polymers used in Drug delivery system.	07
	<b>(b)</b>	Define Composites. Write a short note on Carbons Composites.	07
		OR	
Q.3	(a)	Explain process of Biomaterial's Biocompatibility testing.	07
	<b>(b)</b>	Give compositions and mechanical properties of 316L Stainless Steel with their	07
		applications in Biomedical field.	
Q.4	(a)	Explain any application of Biomaterials in Ophthalmic field.	07
	<b>(b)</b>	Write a short note on Relatively Bioinert Bioceramics.	07
		OR	
<b>Q.4</b>	(a)	Write a short note on Biodegradable materials & their applications.	07
	<b>(b)</b>	Give brief note on rehabilitation devices used for physiological functions of	07
		human body systems- improvement or replacement and their material selection.	
Q.5	(a)	Explain designing aspects of Artificial Heart Valves with material selection.	07
	<b>(b)</b>	Write a short note on Material Selection Criteria and Preclinical Testing.	07
		OR	
Q.5	(a)	Explain properties of biomaterials used in dental implants.	07
	<b>(b)</b>	Write short Note on Cellular response to implants.	07

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