Seat N	lo.:	Enrolment No	ıt No	
		GUJARAT TECHNOLOGICAL UNIVERSITY		
		M.E –II <sup>st</sup> SEMESTER–EXAMINATION – JULY- 2012		
•		ode: 1723104 Date: 10/07/20	12	
Subject Name: Advance Biomaterials				
Time	: 10:	30 am – 13:00 pm Total Marks:	<b>70</b>	
Instr	ucti	ons:		
		empt all questions.		
2. 3.		ke suitable assumptions wherever necessary. Ires to the right indicate full marks.		
	rigi			
<b>Q.1</b>	(a)	Explain used of various polymers as a Biomaterials.	07	
	<b>(b)</b>	What is polymerization? Explain types of polymerization.	07	
Q.2	(a)	Give brief summary of Interaction between tissues and Implants.	07	
	<b>(b)</b>	Write a short note on Surface properties of Biomaterials.	<b>07</b>	
		OR		
	<b>(b)</b>	Write a short note on heart valve prostheses.	07	
Q.3	(a)	Write a short note on Cobalt-chromium alloys.	07	
	<b>(b)</b>	Explain Corrosion of Metallic Implants.	<b>07</b>	
		OR		
Q.3	(a)	Write a short note on Titanium based alloys.	<b>07</b>	
	<b>(b)</b>	Write a short note on materials used for various Dental applications.	07	
Q.4	(a)	What are the uses of Biodegradable ceramics? Explain composition of any	07	
		Biodegradable ceramics.		
	<b>(b)</b>	Explain Blood compatibility of synthetic vascular Implant materials. <b>OR</b>	07	
Q.4	(a)		08	
		time cycle for glass ceramics.	0.6	
	<b>(b)</b>	Explain following terms  • Filler	06	
		<ul> <li>Glass transition temperature</li> </ul>		
		<ul> <li>xenografts</li> </ul>		
Q.5	(a)	Write a short note on Biomaterials used for various application of	07	
		ophthalmology.		
	<b>(b)</b>	Explain composition and properties of biomaterials for parts of artificial Hip joint.	07	
		OR		
Q.5	(a)	Write a short note on Sterility and Infection related issues for Biomaterials.	07	
	<b>(b)</b>	Explain manufacturing issues for Biomaterials.	<b>07</b>	