Seat No.:	Enrolment No.

		GUJARAT TECHNOLO	OGICAL UNIVERSITY
		BE - SEMESTER-VII(NEW) • E	XAMINATION – WINTER 2016
Subject Code:2173904			Date:25/11/2016
Su	bject	t Name:Photonics	
Time:10.30 AM to 1.00 PM			Total Marks: 70
Instructions:			
	1.		
		Make suitable assumptions whereverFigures to the right indicate full mark	•
		g 02 00 010 1-g.10 11-11-10-00 1-11-1	
2.1	(.)	Empleio light material interesting	0.77
Q.1	(a) (b)	Explain light-material interaction. Write Maxwell's equations for vacuu	m and matter. 07
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Q.2	(a)	Write applications of optical fiber.	07
	(b)	Write applications of laser.	OR
	(b)	Write a short note on Plasmon.	07
Q.3	(a)	Describe various optical processes in	semiconductor. 07
Ų.S	(a) (b)	Explain optoelectronic tweezers.	07 07
	(6)	Emplain optionetionic twospers.	OR
Q.3	(a)	Explain photonic crystals.	07
	(b)	Write a short note on luminescence.	07
Q.4	(a)	Explain LED.	07
	(b)	Explain laser diode.	07
			OR
Q.4	(a)	Explain phototransistor.	07
	(b)	Explain charge coupled device.	07
Q.5	(a)	Explain photosynthesis.	07
	(b)	Write a short note on optical biosenso	
Q.5	(e)	Describe optical fiber delivery exeter	OR 07
Ų.S	(a) (b)	Describe optical fiber delivery system Explain laser activated therapy.	07
		Emplani lasor activated therapy.	07
