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Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. - SEMESTER - VIII EXAMINATION - OCTOBER 2012

U		ode: 180301 Date: 27/10/2 Name: Rehabilitation Engineering	012
•	: 02	.30pm - 05.00pm Total Marks	: 70
111511	1. 2.	Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain intelligent prosthetic knee. Explain hybrid assistive system (HAS).	07 07
Q.2	(a)	Give the classification of visual impairment and explain devices for visual augmentation.	07
	(b)	Explain engineering concepts in sensory rehabilitation. OR	07
	(b)	Write a short note on intelligent prosthetic hand.	07
Q.3	(a) (b)	Give the detail classification of wheelchair. (i) Write a short note on ultrasonic torch. (ii) Write a short note on path sounder. OR	07 04 03
Q.3	(a)		07
	(b)	Explain FES system with its application.	07
Q.4	(a) (b)	Explain auditory substitution devices in detail. Explain LASER cane and give its advantages over standard cane. OR	07 07
Q.4	(a) (b)	Explain engineering concept in motor rehabilitation. Explain powered wheel chair in detail.	07 07
Q.5	(a) (b)	Explain tactual vision substitution with various techniques. Explain restoration of standing and walking. OR	07 07
Q.5	(a)	What is rehabilitation engineering? Enlist and explain types of physical impairment.	07
	(b)	Enlist and explain ergonomic consideration in designing wheel chair.	07
