Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- II(New course) • EXAMINATION (Remedial) - WINTER- 2015

Subject Name: Embedded Systems			Date: 10/12/2015	
		30 pm to 5:00 pm Total Marks: 7	70	
11150	1. 2. 3. 4.	Attempt all questions. Make suitable assumptions wherever necessary.		
Q.1	(a) (b)	Write a detailed note on embedded SRAM memories. Draw and explain functional block diagram of 8051 microcontroller.	07 07	
Q.2	(a) (b)	Write a detailed note on Embedded Micro controller Cores. Discuss about the General Purpose Processor. Also compare general purpose processor with single purpose processor in all respect. OR	07 07	
	(b)	Explain interfacing of external memory with 8051 microcontroller.	07	
Q.3	(a)	Discuss Inter-task communication in real time system.	07	
	(b)	Explain application of microcontroller for DC motor control. OR	07	
Q.3	(a)	Discuss importance of Interrupt. Explain the interrupts of 8051 Microcontroller.	07	
	(b)	Write a detailed note on embedded system design aspects.	07	
Q.4	(a) (b)	Write short note on architecture of PIC (16F72) Processor. Explain the concept of RISC. Also discuss about the pipelining for execution of instructions.	07 07	
		OR		
Q.4	(a) (b)	Explain Stepper Motor Interfacing with 8051 Microcontroller. Discuss foreground and background scheduling in a reference to real time systems.		
Q.5	(a) (b)	Explain JTAG port with necessary diagram. Discuss serial peripheral interphase with reference to embedded systems. OR	07 07	
Q.5	(a)	What is Semaphore? Discuss about the deadlock and its conditions with suitable example.	07	
	(b)	Explain Round robin scheduling in real time systems.	07	
