Seat No.:		Enrolment No		
		GUJARAT TECHNOLOGICAL UNIVERSITY BE- VII th SEMESTER-EXAMINATION – MAY/JUNE- 2012		
			Date: 29/05/2012	
Subj	ect N	Name: Embedded Technology		
Time: 02:30 pm – 05:00 pm		:30 pm – 05:00 pm Total Ma	otal Marks: 70	
Instr	ucti	ons:		
1.	Atte	empt all questions.		
2.	Mal	ke suitable assumptions wherever necessary.		
3.	Figu	ures to the right indicate full marks.		
Q.1	(a)	Explain design process in an embedded system.	07	
Q.1	(b)	· · · · · · · · · · · · · · · · · · ·	07	
Q.2	(a)	Explain Digital Camera as embedded system with its architecture.	07	
	(b)	What are the challenges faced in designing an embedded system? OR	07	
	(b)	Write short note on RTLinux	07	
Q.3	(a)	What are the criteria by which appropriate programming language is chosen for embedded software of a given system?	07	
	(b)	Explain blind counting synchronization and Gadfly Busy waiting. OR	07	
Q.3	(a)	Explain serial communication using USART.	07	
	(b)	What are preprocessor directives? Give examples and explain.	07	
Q.4	(a)	What is meant by pipe? How does a pipe differ from queue?	07	
	(b)	What are the OS functions at an RTOS kernel?	07	
0.4		OR	0=	
Q.4	(a)	What are the features of UML?	07	
	(b)	Compare preemptive and round robin scheduling strategies.	07	
Q.5	(a)	Explain how an interrupt finds its way to the interrupt service routine to execute it when the interrupt occurs.	07	
	(b)	Explain the function and purpose of the processor stack. OR	07	
Q.5	(a)	Details the steps in compiling process.	07	
	(b)	What is a watchdog timer and why it is used?	07	
