Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

		BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016	
Su	bject	Code:2171711 Date:29/11/201	16
Ti	me:1	Name:Embedded System Design(Departmental Elective - II) 0.30 AM to 1.00 PM  Total Marks: 7	70
Q.1	<b>2.</b> 3.	Attempt all questions.  Make suitable assumptions wherever necessary.	07 07
Q.2	(a) (b)	Compare 8051 microcontroller with AVR controller.  Explain CPSR and SPSR of ARM processor.  OR	07 07
	<b>(b)</b>	Explain in details ARM development tools.	07
Q.3	(a) (b)	Explain data transfer instruction of ARM with suitable example.  Write an assembly language program to find out largest number among 10 words stored into memory location.	07 07
		OR	
Q.3	(a) (b)	Explain pipeline concept of ARM processor. Write a program to addition of 10 (32 bit) data stored into two array and store the result into third array.	07 07
Q.4	(a) (b)	Explain USB protocol. Explain interrupt sources of ARM processor.  OR	07 07
Q.4	(a)	Explain watchdog timer.	07
<b>7.</b> 7	(b)	Explain SPI communication protocol.	07
Q.5	(a) (b)	Explain RTOS. Explain with suitable example ISR in RTOS.  OR	07 07
Q.5	(a) (b)	Explain memory management of RTOS. Explain task handling by RTOS.	07 07

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