Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E –Ist SEMESTER–EXAMINATION – JULY- 2012

Subject code: 710302N **Date: 07/07/2012**

Subject Name: Advance Microcontroller

Time: 2:30 pm – 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Why microcontroller is much more popular then microprocessor? List the Applications of PIC 18F452 .	**07**
	(b)	Explain Bus structure of PIC18XXX.	**07**
Q.2	**(a)**	Draw and explain block diagram of PIC 18F452 microcontroller.	**07**
	(b)	List the different types of Bit oriented instruction. Explain any three with example	**07**
		OR	
	(b)	Explain future of timer 0 and timer 1	**07**
Q.3	**(a)**	Explain flag register of 18F452 microcontroller along with function of each flag.	**07**
	(b)	Draw a schematic diagram for PIC18XXX microcontroller interface with Seven Segment Display . Write an assembly language program to display 0 to 9 .	**07**
		OR	
Q.3	**(a)**	Draw and explain internal construction of PORT B	**07**
	(b)	Write a ALP to generate a square wave of 2KHz frequency clock frequency is 80KHz.	**07**
Q.4	**(a)**	List the addressing mode of PIC 18F452 and explain any two in detail	**07**
	(b)	Explain different types interrupt of PIC18XXX	**07**
		OR	
Q.4	**(a)**	Explain CCP module for PIC18XXX	**07**
	(b)	Explain stack operation with example.	**07**
Q.5	**(a)**	Explain instruction with example 1)SWAPF 2) BTFSS 3) SUBLW	**07**
	(b)	Write an APL to find how may 1's and 0's in data of memory location 0020h and store result at 0030h and 0031h.	**07**
		OR	
Q.5	**(a)**	Explain instruction with example 1) RETFIE 2) SLEEP 3)OIRWF.	**07**
	(b)	Draw and explain function of PORT A	**07**

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