Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIth SEMESTER–EXAMINATION – MAY- 2012

Subject code: 162002 **Date: 11/05/2012**

Subject Name: Micro Processors and Micro Controllers

Time: 10:30 am – 01:00 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)**	What is Microprocessor and Microcontroller? List out its application.	**07**
	(b)	Draw and Explain function block diagram of 8085 MP.	**07**
Q.2	**(a)**	What do you mean by addressing mode? Explain various addressing mode in 8085MP.	**07**
	(b)	What is instruction? Classify instruction set of 8085 according to word size.	**07**
		OR	
	(b)	Draw and Explain bus architecture in 8085 MP.	**07**
Q.3	**(a)**	Draw and Explain Timing signal diagram for STA 2005 instruction.	**07**
	(b)	What is interrupt? Explain types of interrupt in 8085 MP.	**07**
		OR	
Q.3	**(a)**	Explain memory mapped Input/Output with example	**07**
	(b)	Difference between vectored and Non vectored interrupt with example. Also explain Interrupt priority in 8085 MP.	**07**
Q.4	**(a)**	Write a program in 8051 for addition of two 32-bit numbers.	**07**
	(b)	Explain Data types and Flag Bit of 8051 microcontroller.	**07**
		OR	
Q.4	**(a)**	Write a program in 8085 to convert 2-Digit binary to BCD number.	**07**
	(b)	Draw and Explain Architecture of 8051 microcontroller.	**07**
Q.5	**(a)**	What are assembler directives? Explain EVEN and ORG with example.	**07**
	(b)	Explain bit addressable instructions of 8051 controller.	**07**
		OR	
Q.5	**(a)**	Explain I/O port programming in 8051 controller.	**07**
	(b)	Explain special functions registers available in 8051	**07**

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