GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC - SEMESTER–IV • EXAMINATION – WINTER 2013

Subject Code: X40901   **Date: 03-12-2013**
Subject Name: Microprocessor and Interfacing
Time: 02.30 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)**	What is microprocessor? Give block diagram of microprocessor based system.	**07**
	(b)	Discuss architecture of 8085 microprocessor.	**07**
Q.2	**(a)**	Explain PIN diagram of 8085 microprocessor.	**07**
	(b)	Discuss timing and control signals of 8085 microprocessor.	**07**

OR

	(b)	Discuss memory interfacing with 8085 microprocessor.	**07**
Q.3	**(a)**	Draw timing and control diagram of IN 01H instruction.	**07**
	(b)	Discuss demultiplexing of buses in 8085 microprocessor.	**07**

OR

Q.3	**(a)**	Explain requirement of PPI devices.	**07**
	(b)	Explain block diagram of 8253 timer.	**07**
Q.4	**(a)**	Discuss programmable interrupt controller 8259A.	**07**
	(b)	Discuss block diagram of 8255.	**07**

OR

Q.4	**(a)**	Discuss mode-2 operation of 8255.	**07**
	(b)	Discuss serial I/O concept.	**07**
Q.5	**(a)**	Explain 8237 DMA controller.	**07**
	(b)	Discuss 16 bit data operation of 8085 microprocessor.	**07**

OR

Q.5	**(a)**	Explain interfacing of DAC & ADC converters with 8085 microprocessor.	**07**
	(b)	Explain instruction cycle, machine cycle and T states in brief.	**07**

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