Reg. No. : ....

Name : ....

Fifth Semester B.Tech. Degree Examination, October 2016
(2008 Scheme)
08.505 : MICROPROCESSORS AND INTERFACING (R)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer all questions. Each question carries 4 marks.

1. Calculate the time required for execution of instruction MVI 32H if the clock frequency is 2 MHz.

2. What is the memory address map for an 8085 based system with 8 K RAM ?

3. Give one example for each addressing mode in 8085.

4. Give an example of partial address decoding. What are the advantages ?

5. Specify different flags in 8086.

6. State the major difference between 8086 and 8088.

7. Distinguish between maskable and non maskable interrupts.

8. Specify different 8254 counter modes.

9. Specify modes of operation of DMA controller.

10. Specify control word formats for 8255.   (4×10=40 Marks)

PART – B

Answer any one question from each Module. Each question carries 20 marks.

Module – I

11. a) Design memory interfacing circuit for interfacing 4K × 8 RAM and
       2K × 8 ROM using one 3 to 8 decoder.   12

    b) Specify the address range of memory for the above interfacing circuit.   8

                OR

12. Draw the timing diagram and explain

 a) I/O Read machine cycle.   **10**

 b) Memory fetch machine cycle.   **10**

Module – II

13. Explain internal architecture of 8086 using a block diagram. Explain the functions of each signals.   **20**

                    OR

14. a) Explain interrupts in 8086 processor.   **10**

 b) Compare 8086 minimum mode and maximum mode operations.   **10**

Module – III

15. a) Explain internal architecture of 8237 with a neat diagram.   **10**

 b) Explain Master-Slave mode of operation of DMA controller.   **10**

                    OR

16. Explain counter modes and applications of 8254.   **20**

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