

6E6052

Roll No. \_\_\_\_\_

Total No of Pages: **3**

**6E6052**

**B. Tech. VI-Sem. (Main/Back) Exam., April/May-2016**  
**Electronics & Communication Engineering**  
**6EC2A Microprocessors**

**Time: 3 Hours**

**Maximum Marks: 80**

**Min. Passing Marks (Main & Back): 26**

**Instructions to Candidates:-**

*Attempt any five questions, selecting one question from each unit. All Questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly.*

*Units of quantities used/ calculated must be stated clearly.*

*Use of following supporting material is permitted during examination. (Mentioned in form No. 205)*

1. NIL \_\_\_\_\_

2. NIL \_\_\_\_\_

**UNIT-I**

Q.1 (a) Explain the Architecture of 8085 microprocessor in detail. [8]

(b) Why are AD<sub>7</sub> – AD<sub>0</sub> lines multiplexed? With the help of latching circuit explain how these lines are demultiplexed. [8]

**OR**

Q.1 (a) Explain the Addressing modes of 8085 microprocessor with the help of suitable examples. [8]

(b) Explain memory mapped I/O Interfacing Technique. [8]

## UNIT-II

- Q.2 (a) What are the Basic machine cycle in 8085 microprocessor? Explain the op – code fetch machine cycle using timing diagram. [10]
- (b) Write a program to find 2's compliment of a number. [6]

### OR

- Q.2 (a) Explain different types of 8 – bit instructions of 8085 microprocessor, giving also suitable examples. [8]
- (b) Explain the term Machine Cycle, T – State and Instruction Cycle. [8]

## UNIT-III

- Q.3 (a) Explain the different types of 16 – bit Instructions of 8085 microprocessor, giving also suitable examples. [8]
- (b) Pack the two unpacked BCD number stored in memory location 2000 H and 2001 H and store the result in 2500 H. Assume that last digit is stored in 2001 H. [8]

### OR

- Q.3 (a) Write a program to shift 8 – bit data for 4 – bit right side without carry. Assume that data is in Register C. [8]
- (b) Explain different types of Instructions related to counter and Time delay with examples. [8]

## UNIT-IV

- Q.4 (a) Distinguish between software and Hardware Interrupts. Draw the diagram of interrupt structure of 8085 MPU. [10]
- (b) Explain the instructions SIM and RIM and illustrate how to use them for 8085 interrupts. [6]

OR

- Q.4 (a) What do you mean by Vectored and Non Vectored Interrupts? Also differentiate between maskable and non maskable interrupts. [12]
- (b) Write Instruction to mask RST 7.5 and RST 6.5 interrupt simultaneously. [4]

## UNIT-V

- Q.5 (a) Draw the Interfacing diagram of 8257 DMA and explain its operations. [8]
- (b) Explain 8255 PPI with the help of a Block diagram. [8]

OR

- Q.5 (a) Explain different types of modes of 8254 PIT with diagram. [8]
- (b) Explain the different types of modes of 8259 PIC with diagram. [8]