6E6052

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B. Tech. VI-Sem. (Main / Back) Exam., October 2020
Electronics & Communication Engineering
6EC2A Microprocessors

Time: 2 Hours

Maximum Marks: 48
Min. Passing Marks: 16

Instructions to Candidates:

*Attempt **three questions**, selecting **one question each** from any three **unit**. All Questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing 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- 1

Q.1 (a) Name the various types of buses in 8085 Microprocessor. Explain the functions of each in brief. [8]

(b) Draw the pin diagram of 8085 Microprocessor and explain its various pins. [8]

OR

Q.1 (a) Distinguish between the memories mapped I/O & peripheral I/O. [8]

(b) Explain various addressing modes of 8085 Microprocessor using suitable examples. [8]

UNIT-II

Q.2. (a) Explain the following instructions of 8085 Microprocessor using suitable examples [12]

    (i) LHLD

    (ii) XTHL

    (iii) DAA

    (iv) DAD

  (b) Name the various machine cycle of 8085 Microprocessor [4]

OR

Q.2 (a) Explain the following instructions of 8085 Microprocessor using suitable examples : [12]

    (i) LXI

    (ii) XCHG

    (iii) SPHL

    (iv) LDA

  (b) Draw the timing diagram for the execution of instruction LXI Rp 16 bit data. [4]

UNIT-III

Q.3 (a) Write a program in 8085 assembly language to add two 16 bit numbers using ADC instruction. Store the result in memory. [10]

  (b) Give format of SIM instruction [6]

OR

Q.3 (a) Write a program in 8085 assembly language to copy a block of data bytes from one memory location starting from 2051 to another memory location starting from 3051. Number of data to be copied is given at memory location 2050H. [10]

  (b) Give format of RIM instruction [6]

UNIT-IV

Q.4 Explain vectored and non-vectored interrupts of 8085   [16]

OR

Q.4 What are various interrupts available in 8085 Microprocessor? Distinguish between maskable and nonmaskable interrupts   [16]

UNIT-V

Q.5 (a) Draw the architecture of PIC 8259 indicating different blocks and their interconnections? Explain its operation   [8]

(b) Explain the following for 8255 PPI   [8]

   (i) Mode control word format

   (ii) Bit set/reset control word format

OR

Q.5 (a) List the major components of the 8279 keyboard display interface and explain their function   [8]

(b) Draw the pin diagram of 8254 programmable interval timer and explain its functional block diagram   [8]