322551(22)

B. E. (Fifth Semester) Examination, April-May 2021

(New Scheme)

(CSE, IT Branch)

MICROPROCESSOR & INTERFACES

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : *Part (a) of each question is compulsory. Attempt any two parts from (b), (c) and (d).*

Unit-I

1. (a) Why 8085 microprocessor called '8085'?   2

    (b) What are the advantages of 8086 microprocessor over 8085 microprocessor?   7

(c) Explain internal architecture of 8088 microprocessor. 7

(d) Draw pin diagram of 8085 and explain following pins : 7

    (i) ALE

    (ii) SID

    (iii) $\overline{\text{RESETIN}}$

    (iv) HOLD

    (v) TRAP

Unit-II

2. (a) What is the difference between SP and BP?   2

   (b) Write an assembly level language program to find even and odd number from given series.   7

   (c) Which two pins are used to select even and odd memory bank in 8086? Draw architecture and explain concept of memory banking used in 8086.   7

   (d) What is addressing mode? Explain all indirect addressing modes used in 8086 microprocessor.   7

Unit-III

3. (a) What is vector interrupt?   2

(b) Write a program that uses character string defined with C and displays it so each word is listed on a separate line.   7

(c) Draw the structure of interrupt vector table. Explain all types of interrupts.   7

(d) Draw and explain the timing diagram of read cycle for maximum mode operation of 8086.   7

Unit-IV

4. (a) What is the difference between min mode and max mode?   2

   (b) Design an interface between 8086 CPU and two chips of 16 K × 8 EPROM and two chips of 32 K × 8 K RAM. Select the starting address of EPROM suitably. The RAM address must start at 00000 H.   7

   (c) Explain the different modes of 8285 with its control word format.   7

   (d) What is DMA? Explain its arcchitecture and transfer modes.   7

Unit-V

5. (a) Write any two features of 80386 processor.   2

(b) Compare real mode and protected mode operation
of 80386 processor. 7

(c) Write short notes on : 7

    (i)   Paging

    (ii) Segment descriptor

(d) Give comparision of core i_3, i_5, i_7 and Atom

processors. 7

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