

C.U. SHAH UNIVERSITY

Summer Examination-2022

Subject Name : Advanced Micro-Processors

Subject Code : 4TE05AMP1

Branch: B.Tech (CE)

Semester: 5

Date: 27/04/2022

Time: 11:00 To 02:00

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1

Attempt the following questions:

- a) Define : Embedded system. (01)
- b) Define : Microprocessor. (01)
- c) Define : Microcontroller. (01)
- d) True/False: 8086 is 16-byte microprocessor. (01)
- e) What is addressing mode? (01)
- f) Which group of instructions does affect the flags?
A). Arithmetic operations B). Logic operations (01)
C). Data transfer operations D). Both A and B.
- g) MVI A, 02 instructions is how many bits of instruction?
A). 32 B).16 C). 8 D). 24 (01)
- h) Intel 80386 microprocessor is a _____ processor.
A). 4 bit B). 32 bit (01)
C).8 bit D). 16 bit
- i) Which instruction is used to read content from memory and store it in accumulator?
A) STA B) LDA C) RDA D) MDA (01)
- j) CMA is how many byte of instruction?
A). 1 B). 2 C). 3 D). 4 (01)
- k) The first microprocessor built by the Intel Corporation was called
A) 8080 B) 8008 C) 4004 D) 8800 (01)
- l) The PF is known as _____
A) Priority flag B) positive flag C) Parity flag D) push flag (01)
- m) In which mode 80386 do support memory management and protection mechanism?
A). Direct mode B). indirect mode C). Protected mode D). Real mode (01)
- n) The selector contains the segment's
A). Segment limit B). Base address C). Access right byte D). All of (01)
the above



Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions**
- (a) Explain various addressing mode of 8086 MP. (07)
- (b) What is descriptor table? Explain GDT, LDT, IDT. (07)
- Q-3 Attempt all questions**
- (a) Draw and explain bus system of 8085 MP. (07)
- (b) Draw and explain architecture of 8085 MP. (07)
- Q-4 Attempt all questions**
- (a) Draw pin diagram of 8085 MP. Explain following pins 1. HOLD 2. RESET (07)
3. ALE 4. IO/M 5. READY.
- (b) Draw and explain Programming and hardware model of 8085 MP. (07)
- Q-5 Attempt all questions**
- (a) Write short note memory protection mechanism in x86 families. (07)
- (b) Explain Real Address Mode and Protected Virtual Address Mode of 80386 MP. (07)
- Q-6 Attempt all questions**
- (a) Explain different type of interrupt maskable, non-maskable, vector, non-vector (07)
with example.
- (b) Explain different types of instruction of 8085 as per functionality. (07)
- Q-7 Attempt all questions**
- (a) Draw Register set of 80386 processor and explain flag register. (07)
- (b) Draw and Explain Memory bank system of 8086 MP. (07)
- Q-8 Attempt all questions**
- (a) Differentiate between 16-bit and 8-bit Microprocessors. (07)
- (b) Draw and Explain block diagram of 8086 MP. (07)

