C.U.SHAH UNIVERSITY
Summer Examination-2019

Subject Name : Advanced Micro-Processors
Subject Code : 4TE05AMP1   **Branch: B.Tech (CE)**
Semester : 5   Date : 22/03/2019   Time : 10:30 To 01:30   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 : Microprocessor.	**(01)**
b)	Define : Instruction Queue.	**(01)**
c)	Define : Interrupt.	**(01)**
d)	True/False: 8085 is 8 byte microprocessor.	**(01)**
e)	Which group of instructions does not affect the flags?	
	A) Arithmetic operations B) Logic operations	**(01)**
	C) Data transfer operations D) Branch operations	
f)	The first microprocessor built by the Intel Corporation was called	**(01)**
	A) 8080 B) 8008 C) 4004 D) 8800	
g)	MVI A,02 instruction is how many byte of instruction?	**(01)**
	A) 4 B) 2 C) 1 D) 3	
h)	Intel 8086 microprocessor is a _____ processor.	
	A) 4 bit B) 32 bit	**(01)**
	C) 8 bit D) 16 bit	
i)	The PF is known as _____	**(01)**
	A) Priority flag B) positive flag C) Parity flag D) push flag	
j)	The _____ contains an offset instead of actual address	**(01)**
	A) SP B) IP C) ES D) SS	
k)	The CPU has to wait until the execution stage to determine whether the condition is met in____ branch	**(01)**
	A) Conditional B) unconditional	
	C) Pipelined execution D) None of mentioned	
l)	BHE of 8086 microprocessor signal is used to interface the	**(01)**
	A) Even bank memory B) Odd bank memory C) I/O D) DMA	
m)	In which mode 80386 do support memory management and protection mechanism?	**(01)**
	A. Direct mode B. indirect mode C. Protected mode D. Real mode	
n)	Which instruction is used to increment 16 bit register pair content?	**(01)**
	A) INR B) INX C) INC D) INP	

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

Q-2   **Attempt all questions**   **(14)**

(a) Write short note on **1**. Address bus, data bus and control bus of 8085 MP. **2.** Different characteristics of Microprocessor.

(b) Draw pin diagram of 8085 MP and Explain any two category of pins.

Q-3   **Attempt all questions**   **(14)**

(a) Explain various addressing mode of 8086 MP.

(b) Explain Demultiplexing process of AD7- AD0 bus system in 8085 MP.

Q-4   **Attempt all questions**   **(14)**

(a) Explain Real Address Mode and Protected Virtual Address Mode of 80386 MP.

(b) Draw and Explain General Segment Descriptor format for x86 family MP.

Q-5   **Attempt all questions**   **(14)**

(a) What is descriptor table? Explain GDT, LDT, IDT.

(b) Write short note memory protection mechanism in x86 families

Q-6   **Attempt all questions**   **(14)**

(a) Explain Architecture of 8085 MP.

(b) Explain different type of interrupt makeable, non-maskable, vector, non-vector with example.

Q-7   **Attempt all questions**   **(14)**

(a) Explain pin functions of 80286 MP.

(b) Draw Register set of 80386 processor and explain Flag register.

Q-8   **Attempt all questions**

(a) Draw and Explain Memory bank system of 8086 MP.   **(05)**

(b) Explain following instruction with example: MOV, ADC, LOOP, LEA ,AAA, iDIV, NEG   **(07)**

(c) Explain Hyper Threading.   **(02)**