

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Advanced Micro-Processors

Subject Code : 4TE05AMP1

Branch :B.Tech (CE/IT)

Semester : 5

Date :09/12/2015

Time : 2:30 To 5:30

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.
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Q-1

Attempt the following questions:

- a) If the data is present in a register and it is referred using the particular register, then it is 1
a) direct addressing mode b) register addressing mode
c) indexed addressing mode d) immediate addressing mode
- b) The assembler directives which are the hints using some predefined alphabetical strings are given to 1
a) processor b) memory c) assembler d) processor & assembler
- c) As the storing of data words onto the stack is increased, the stack pointer is 1
a) incremented by 1 b) decremented by 1
c) incremented by 2 d) decremented by 2
- d) The time required for execution of a macro is that of procedure. 1
a) greater than b) less than c) equal to d) none of the mentioned
- e) The instruction that subtracts 1 from the contents of the specified register/memory location is 1
a) INC b) SUBB c) SUB d) DEC
- f) The process of making the physical memory free by storing the portion of program and partial results in the secondary storage called 1
a) mapping b) swapping in c) swapping out d) pipelining
- g) One of the main feature that distinguish microprocessors from micro-computers is 1
is
a. Words are usually larger in microprocessors
b. Words are shorter in microprocessors



- c. Microprocessor does not contain I/O devices
d. Exactly the same as the machine cycle time
- h) The Intel 8086 microprocessor is a _____ processor . 1
a. 8 bit b. 16 bit c. 32 bit d. 4 bit
- i) The 16 bit flag of 8086 microprocessor is responsible to indicate _____ 1
a. the condition of result of ALU operation b. the condition of memory
c. the result of addition d. the result of subtraction
- j) Which microprocessor has multiplexed data and address lines? 1
a. 8086 b. 80286 c. 80386 d. Pentium
- k) 20-bit address bus can locate _____. 1
a. 1,048,576 locations b. 2,097,152 locations
c. 4,194,304 locations d. 8,388,608 locations
- l) The directive used to inform the assembler, the names of the logicals segments to be assumed for different segments used in the program is 1
a) ASSUME b) SEGMENT c) SHORT d) DB
- m) Which method bypasses the CPU for certain types of data transfer? 1
a. Software interrupts b. Interrupt-driven I/O
c. Polled I/O d. Direct memory access (DMA)
- n) The register AX is formed by grouping _____ 1
a. AH & AL b. BH & BL c. CH & CL d. DH & DL

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

Attempt all questions

- Q-2 A Explain the internal architecture of 8085 microprocessor with diagram. (07)
 B What is bus ? List and Explain different types of bus with diagram. (07)

Attempt all questions

- Q-3 A What is memory bank ? Explain 8086 memory bank with diagram. (07)
 B Explain working of 8086 in minimum mode with diagram. (07)

Attempt all questions

- Q-4 A Write an assembly language program in 8086 to subtract two 32 bit numbers. (07)
 B Write a assembly language program in 8086 to move string of data bytes from one memory location to another memory location using string instruction. (07)



- Attempt all questions**
- Q-5 A What is addressing mode ? Explain any 6 addressing modes of 8086 with example. (07)
B What is memory segmentation? Explain segmented memory organization of 8086 microprocessor with necessary diagram. (07)
- Attempt all questions**
- Q-6 A List 80386 descriptor table registers ? Explain any 2 descriptor table registers. (07)
B With a diagram explain internal architecture of 80286 microprocessor. (07)
- Attempt all questions**
- Q-7 A What is descriptor? Explain LDT and GDT. (07)
B Explain with diagram how 80386 converts logical address to physical address using paging. (07)
- Attempt all questions**
- Q-8 A List and explain any 5 features of Pentium processor. (05)
B Compare RISC and CISC. (05)
C List and explain any 4 features of Intel core2 duo desktop processor. (04)

