UNIT - V

5. a) Give two major architectural advancement in 80486.

   b) Write difference between Pentium and Pentium Pro.

   c) What is the use of TEST and DEBUG facility in 80486.

   d) Explain the cache management unit of 80486.

OR

Explain the different functional groups of signals provided by 80486.

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Roll No .....

MCA - 405(E)

MCA IV Semester

Examination, June 2015

Microprocessor and Interface

(Elective-I)

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

UNIT - I

1. a) What is the role of stack in calling a subroutine and returning from the routine?

   b) Mention the advantages of using the Direct Memory Access.

   c) Why and When wait states are required? How do you insert wait states?

   d) Draw and discuss the red and write cycle diagrams of 8086 in minimum mode?

OR

Write functioning of the following instructions of 8086 microprocessor :

i) RIM

ii) SIM

iii) MOV A,M

iv) STA 2500 H

v) LDA 2600 H

vi) CMP

UNIT - II

2. a) Give the salient features of the 8254 programmable interval timer.

b) Explain the 8086 interrupts types in detail.

c) Design an interface between 8086 CPU and two chips of 16K × 8EPROM and RAM address must start at 00000H.

d) Explain the different commands of 8279 in detail.

OR

Discuss the following modes of DMA transfer.

i) Signal transfer mode

ii) Block transfer mode

iii) Demand transfer

iv) Memory to memory transfer

UNIT - III

3. a) Write salient features of intel 32 bit processor.

b) Describe different flags of MSW.

c) What do you mean by interrupt priorities? Show interrupt processing priorities of 80286.

d) What are the different addressing modes supported by 80286?

OR

What do you mean by a descriptor? Draw and discuss the structure of a general 80286 descriptor.

UNIT - IV

4. a) Write any two comparisons between 80386SX and 80386DX.

b) Explain physical address formation in real mode of 80386.

c) Explain utility of different descriptor tables used in 80386.

d) Explain and show the complete paging mechanism of 80386 with and without TLB.

OR

Draw and discuss internal architecture of 80386 in detail.

