

Total No. of Questions : 8]

SEAT No. :

P1021

[4457]-215

[Total No. of Pages : 2

S.E. (Computer Engineering)
MICROPROCESSOR ARCHITECTURE
(210245) (2012 Course) (Semester - I)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) Answer any 4 questions 1 or 2, 3 or 4, 5 or 6, 7 or 8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.

- Q1)** a) Define microprocessor. Give some features of 8086 microprocessor. [3]
b) Explain Memory organization and segmentation in 80386DX. [6]
c) What are the different types of descriptors? [3]

OR

- Q2)** a) Enlist the difference between 8086 and 80386. [3]
b) Draw the functional block diagram of 80386DX and explain the main functional Units. [6]
c) What is TSS descriptor? [3]

- Q3)** a) What are the characteristics of address pipelining in 80386DX? [4]
b) Draw the timing diagram for write cycle with pipelined address. [5]
c) What is the use of bit test and modify instructions. [3]

OR

- Q4)** a) How IMUL is different from MUL? [3]
b) Draw the timing diagram for read cycle with pipelined address. [5]
c) Compare procedure and macro in assembly language programming. [4]

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- Q5)** a) What are the advantages of multicore designing? [3]
b) What are the three common configuration that support multiprocessing? Explain. [6]
c) What is single instruction multiple Data model for parallel programming?[4]

OR

- Q6)** a) Define Chip Multiprocessors (CMPs) [3]
b) What is Front side bus Back side bus BSB and I/O bus? [6]
c) What is multiprogramming and multiprocessor? [4]
- Q7)** a) What are the differences between IA-32 Basic Execution environment and 64 bit mode execution environment? [3]
b) Draw and explain the block diagram of 64 bit architecture. [6]
c) Explain virtualization technology. [4]

OR

- Q8)** a) List features of SSE. [3]
b) Describe the Intel Microarchitecture code name Nehalem. [6]
c) What are the advantages and disadvantages of Hyper threading. [4]

