MP COMPUTERS T.E Sem V
24/11/15

QP Code : 5609

(3 Hours) **[Total Marks : 80**

Note the following instructions.

1. Question no.1 is compulsory.
2. Solve any three questions out of remaining five questions.
3. Assume suitable data if necessary.

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1. (a) Write short note on 8288 Bus Controller. (5)
   (b) Explain the following instructions in 8086 : LAHF and STOSB (5)
   (c) Design interfacing of 8282 latches to 8086 system. (5)
   (d) Explain in brief Protection Mechanism in 80386DX Processor. (5)

2. (a) Explain Memory Management in details in 80386DX processor (10)
   (b) Design 8086 based system with following specifications (10)
   (i) 8086 in minimum mode working at 8MHz
   (ii) 32KB EPROM using 16KB devices.
   (iii) 64KB SRAM using 32KB devices.

3. (a) Explain with block diagram working of 8255 PPI. (10)
   (b) What is segmentation? What are the advantages of segmentation? (5)
   (c) Differentiate between minimum mode and maximum mode in 8086. (5)

4. (a) Explain branch prediction logic used in Pentium. (10)
   (b) Compare Pentium 2, Pentium 3 and Pentium 4 processors. (10)

5. (a) Explain different data transfer modes of 8237 DMA controller. (10)
   (b) Explain the architecture of Super SPARC processor with a neat diagram. (10)

6. Write short note on
   (a) 8087 Math Coprocessor. (5)
   (b) Generation of Reset signals in 8086 based system. (5)
   (c) Comparative Study of multicore i3, i5 and i7 processors. (5)
   (d) Mixed Language Programming. (5)
