



210245

Seat No.	
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S.E. (Comp. Engg.) (Semester – I) Examination, 2014
MICROPROCESSOR ARCHITECTURE
(2012 Course)

Time : 2 Hours

Max. Marks : 50

Instructions : 1) Neat diagrams must be drawn **wherever** necessary.
2) Figures to the **right** side indicate **full** marks.
3) Assume suitable data **if necessary**.

1. a) How many segment registers are used by 8086 ? Mention their use. 3
b) Explain the different operating modes of 80386. 6
c) What is the use of task gate ? 3
OR
2. a) What is the difference between Min mode and Max mode of 8086 ? 4
b) Explain the various data types supported by 80386. 5
c) What is LDT descriptor ? 3
3. a) Enlist the differences between pipelined and non pipelined machine cycle. 4
b) Draw the timing diagram for read cycle with non pipe lined address. 5
c) Enlist the program flow control instructions. 3
OR
4. a) What is the use of HOLD and HLDA instruction ? 3
b) Draw the timing diagram for non pipelined write cycle. 5
c) How to define and use the macro in assembly language programming ? 4
5. a) What are the differences between dual and quad core CMP ? 3
b) What are different architectures of multicore ? Explain. 6
c) What are the advantages of cache memory ? 4
OR
6. a) What are the advantages of multicore designing ? 3
b) Give the features of parallel programming with diagram. 6
c) What is front side bus back side bus BSB ? 4
7. a) Briefly explain the compatibility mode and 64-bit mode of IA 64 Architecture. 3
b) Explain the execution model of SIMD with neat diagram. 6
c) What are the advantages of hyper threading technology ? 4
OR
8. a) What are the features of Intel Microarchitecture code name Nehalem ? 3
b) Give the features of SSE. 6
c) What are the advantages virtualization technology ? 4

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