210245

Seat No.	

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 mod e 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 Microarchiteture code name Nehalem ? **3**
   b) Give the features of SSE. **6**
   c) What are the advantages virtualization technology ? **4**
