CMP510 – computer organization Semy.

P30/P32/CMP223/EE/20180107

Time : 3 Hours **Marks : 80**

Instructions :

1. All Questions are Compulsory.
2. Each Sub-question carry 5 marks.
3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
4. Question paper of 80 Marks, it will be converted in to your programme structure marks.

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1. Solve any **four** sub-questions.
   - a) Explain in brief Von-Neumann architecture of computer? 5
   - b) Explain the following terms: 5
     - i) Computer function
     - ii) Interconnection structure
   - c) Define fixed and floating point number? 5
   - d) State the integers 2's complement 5
     - i) addition
     - ii) subtraction
     - iii) multiplication
   - e) Explain division - restoring and non restoring algorithm in details? 5

2. Solve any **four** sub-questions.
   - a) With the help of neat diagram describe Intel 8086 CPU architecture? 5
   - b) Write short note on: 5
     - i) Instruction format 8086
     - ii) Instruction cycle
   - c) Explain the concept of instruction pipeline in detail? 5
   - d) Describe single bus organization of a processor? 5
   - e) Explain hard wired and micro programmed control in detail? 5

3. Solve any **four** sub-questions.

a) Define characteristics of memory system? 5

b) What is primary memory? Enlist its various types? 5

c) With the help of diagram describe cache memory? 5

d) Compare RAM and ROM? 5

e) Explain the term cache coherence? 5

4. Solve any **four** sub-questions.

a) Explain I/O Addressing? 5

b) State 8086 interrupt structure in detail? 5

c) With neat diagram explain the concept of DMA? 5

d) What are the component of OS? 5

e) Explain super scalar processors? 5

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