

II Semester B.Sc. (I.T.) Examination, June/July 2010
COMPUTER ARCHITECTURE

Time : 3 Hours

Max. Marks : 75

***Instruction :** Answer **all** questions from Part – A and answer **any five** questions from Part – B.*

PART – A

1. Explain the key features of analytical engine. **(10×2+5×1=25)**
2. List out some important developments in Third Generation.
3. Write a note on arithmetic micro-operations.
4. Give the hardware implementation of Booth Algorithm.
5. Explain the machine instruction used in logical operations.
6. Write a note on the segments in computer memory.
7. What is memory-mapped I/O ?
8. How interrupt procedures differ from subroutines ?
9. Write a note on main memory.
10. List out the application areas of vector processing.
11. Define the following :
 - a) MAR
 - b) VLSI
 - c) IR
 - d) DMA
 - e) SISD.

P.T.O.

PART – B

Answer **any five** :

(5×10=50)

1. Explain the classification of computers.
 2. Explain the various computer addressing modes.
 3. Explain Interrupt driven I/O.
 4. Explain Daisy-chaining priority.
 5. What is an IOP ? With a neat diagram, explain CPU-IOP communication.
 6. Write the instructions for PUSH, POP operations of stack and explain.
 7. Explain BCD Adder with a neat diagram.
 8. Explain arithmetic pipeline for floating point addition and subtraction.
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