

B.C.A. (II Semester) Examination, March 2011
COMPUTER ORGANIZATION AND ARCHITECTURE

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer **all** questions in Part – A, **6** out of **8** questions in Part – B and **3** out of **5** questions in Part – C.
2) Part – A : Questions from **1** to **8** carry **1** mark **each** and **9** to **14** carry **2** marks **each**.
3) Part – B : **Each** question carries **5** marks.
4) Part – C : **Each** question carries **10** marks.

PART – A

1. What is a computer ?
2. Define BIT and word.
3. 1 KB = _____ bytes.
4. Write the features of analytical engine.
5. What is the advantage of super computer ?
6. Write the block diagram of BCD adder.
7. What is a interrupt ?
8. What is static memory ?
9. Differentiate high level language and machine level language.
10. What is the purpose of memory stack ?
11. What is the drawback of CISC ?
12. What is parallel processing ?
13. Briefly explain a RAM chip.
14. What do you mean by access time ?

P.T.O.

PART – B

1. Briefly explain Von Neumann Architecture.
2. Write a note on 3 state table buffers.
3. Explain booth multiplication algorithm.
4. Write a note on floating point operations.
5. Write a note on first pass.
6. With suitable example explain shift operations.
7. Briefly explain program driven IO.
8. What is *pipelining* ? Explain pipelining through *space-time diagram* for 5 instructions with 6 stages each.

PART – C

1. Explain I and II Generation of Computers.
 2. With the help of a diagram explain 2 bit array multiplier.
 3. Explain the functioning of register stack.
 4. With the help of example explain different instruction formats.
 5. Explain the functioning of multiple interrupt and priority interrupt.
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