BCA – 22

II Semester B.C.A. Examination, Feb./March 2010
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 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) Define Von Neumann architecture.

2) What is address ?

3) In which generation microprocessors used.

4) Define Program counter.

5) What is an assembler ?

6) What are zero address machines ?

7) What is the use of DMA ?

8) What is access time ?

9) Write the functions of CU.

10) What are the uses of Super Computers ?

11) Define register stack.

12) What is pipelining ?

13) What is full duplex ? Give example ?

14) Define addressing mode.

P.T.O.

PART – B

1) Write multiplication, division of floating point number with example.
2) Write flowchart for first pass assembler.
3) Explain interrupt driven I/O.
4) What are the applications of vector operations ?
5) What are the Flynn's classifications of computers ?
6) What are the characteristics of RISC machine ?
7) Write the memory hierarchy.
8) Write a combinational circuit for 2 bit by 2 bit array multiplier.

PART – C

1) Explain booth multiplication algorithm with example.
2) Explain different types of addressing modes.
3) Explain frame format, control field of bit oriented protocol.
4) Discuss multistage switching networks.
5) Consider the following virtual page reference sequence page 1 2 3 4 2 1 5 6 2 1 2 3. Show the no. of page fault for a) LRU-3 b) FIFO-3 c) FIFIO-4

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