Roll No. ....

Subject Code—2078

M.C.A. (Second Year) EXAMINATION

(5 Years Integrated Course)

MCA-204

COMPUTER ORGANIZATION & ARCHITECTURE

Time : 3 Hours   *Maximum Marks :* 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. Classify computer on the basis of instruction set. Also explain working principle of RISC and CISC type computers.

2. Explain programmed, interrupt and DMA methods of data transfer techniques.

3. Differentiate between hardwired and micro-programmed control unit. Also draw hardwired control unit for a particular scenario.

4. Explain different addressing modes by taking appropriate example.

5. Explain different memory organization techniques. Also discuss associative and virtual memory.

6. Explain the following micro-operations by taking appropriate example :
   (a) Arithmetic
   (b) Logical
   (c) Shift.

7. Draw and explain various mapping techniques used in Cache Memory System.

8. Write short notes on the following :
   (a) ALU
   (b) Microprogram Sequencer.