S.E. Sem IV (CBAS).   27/5/15
(Computers I.T.)
CoA   **QP Code : 3546**

(3 Hours)   Total Marks: 80

N.B.:- (1) **Question no.1 is compulsory.**
    (2) Solve any **three** questions out of remaining **five** questions.
    (3) Assume suitable data if necessary.

1. (a) What are applications of Microprogramming?   3
   (b) What is stored program concept in digital computer?   3
   (c) List the Flynn's Classification of Parallel Processing Systems.   3
   (d) Draw flowchart for Booth's Algorithm for Twos Complement Multiplication.   3
   (e) What is Associative memory?   4
   (f) Explain in brief Programmed I/O.   4

2. (a) Explain with diagram functioning of Hardwired Control Unit.   8
   (b) Using Unsigned Binary Division method, divide 7 by 3.   6
   (c) Explain IEEE 754 standards for Floating Point number representation.   6

3. (a) Describe what are the features of cache design?   8
   (b) What are the differences between RISC and CISC processors?   6
   (c) Explain concepts of Nano programming.   6

4. (a) What are major requirements for an I/O module?   6
   (b) Explain in details Virtual Memory, Segmentation and Paging.   7
   (c) Explain in details Cache Coherency.   7

5. (a) What is instruction pipelining? What are advantages of pipelining?   6
   (b) Explain DMA based data transfer technique for I/O devices.   7
   (c) Explain Microinstruction sequencing and execution.   7

6. Write short note on:
   (a) Pipeline Hazards.   7
   (b) Scanner.   7
   (c) Interrupt driven I/O.   6

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