S.E. Sem IV (CBGS).
(Computers I.T.)
COA

27/5/15

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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