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[4857]-1080

S.E. (Comp. Engg.) (Second Semester) EXAMINATION, 2015

COMPUTER ORGANIZATION

(2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Neat diagrams must be drawn wherever necessary.

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if necessary.

1. (a) Explain Booth's multiplication algorithm. Multiply 4 and 6 by using it. [8]

(b) Write a short note on integer and floating point data representation. [4]

Or

2. (a) Determine how hardware, software and architecture jointly determine performance of a computer system. [6]

(b) Explain different addressing modes with example. Discuss drawback of relative addressing mode. [6]

3. (a) Explain with example working of multistage pipeline. [7]

(b) Write a short note on Intel Nehalem Organization. [6]

P.T.O.

Or

4. (a) What is pipeline ? Explain how it affects speed of execution. [7]
(b) What is classical method of control unit design ? [6]
5. (a) Write a short note on DDR3 memory organization. [6]
(b) Explain in detail Direct Memory Access (DMA). [6]

Or

6. (a) What is IO mapped IO and memory mapped IO ? [4]
(b) What is NUMA and UMA ? Explain in detail. [8]
7. (a) Draw block diagram and explain the role of each block of sun ultraspark T1. [6]
(b) Write a short note on IBM Cell Broadband Engine (CBE). [7]

Or

8. (a) Explain in detail and justify features of IA-64 model. [8]
(b) Draw block diagram of NVIDIA GPU architecture. [5]