

Total No. of Questions—8]

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Seat No.

[5668]-194

S.E. (Comp. Engg.) (Second Semester) EXAMINATION, 2019

COMPUTER ORGANIZATION

(2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Attempt questions Nos. 1 or 2, 3 or 4, 5 or 6, 7 or 8.

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if necessary.

1. (a) Explain Booth's multiplication Algorithm with a suitable example. [6]

(b) Explain IEEE 488 format for single precision and double precision floating point numbers with example. [6]

Or

2. (a) Explain speedup techniques for the processor in brief. [6]

(b) Explain data representation using single and double precision formats. [6]

3. (a) Perform $1100 \div 11$ using non-restoring division algorithm. [6]

(b) Explain different hazards in pipeline. [6]

P.T.O.

Or

4. (a) Explain restoring division algorithm with flowchart. [6]

(b) What are the different design methods for Hardwired control units ? Explain any one. [6]

5. (a) Compare UMA and NUMA architecture. [7]

(b) Explain Intel Nehalem memory organization with diagram. [6]

Or

6. (a) What is bus arbitration ? Describe the centralized and distributed arbitration. [7]

(b) Write a note on DDR3 memory organization. [6]

7. (a) Draw and explain block diagram of Itanium processor. [7]

(b) Explain IA-64 architecture. [6]

Or

8. (a) Explain the architecture of CBE processor with the help of block diagram. [7]

(b) Write a note on NVIDIA GPU. [6]

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