

NOV-2017

Total No. of Questions—8]

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Seat
No.

S.E. (Comp. Engg) (Second Semester) EXAMINATION, 2017

COMPUTER ORGANIZATION

(2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

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

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if necessary.

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

(b) List different register set in 80386DX and explain flag register in detail. [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) Explain restoring division algorithm with flowchart. [6]

(b) Explain in detail hazards in instruction pipeline. What is operand forwarding ? [7]

Or

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

(b) Compare hardware control and micro programmed control. [7]

P.T.O.

5. (a) Explain in detail Intel Nehalem Memory Organization. [6]

(b) Explain use of DMA controller in computer system. [6]

Or

6. (a) Write a note on memory mapped I/O and I/O mapped I/O with advantages and disadvantages. [6]

(b) Write a note on USB bus organization. [6]

7. (a) Write short note on Sun UltraSparc T1. [6]

(b) Explain in detail IA-64 architecture. [7]

Or

8. (a) Compare traditional superscalar architecture and IA-64 architecture. [7]

(b) List and explain properties of i5/i7 processor. [6]

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