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Seat No.	
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[5559]-184

**S.E. (Computer) (I Sem.) EXAMINATION, 2019**  
**COMPUTER ORGANIZATION AND ARCHITECTURE**  
**(2015 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

*Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Use of Calculator is allowed.*
- 4) *Assume Suitable data if necessary*

- Q.1 a) Draw and explain flow chart of non restoring division algorithm [6]  
b) Write short note on [6]  
1.PROM  
2.EPROM
- OR**
- Q.2 a) Draw and explain hardware implementation of Booth's Algorithm [6]  
b) Draw and explain memory hierarchy [6]
- Q.3 a) Write short note on Infini Band and Infini band Architecture [6]  
b) Explain following addressing modes with one example each [6]  
a. auto increment  
b. auto decrement  
c. immediate
- OR**
- Q.4 a) Draw and explain I/O channels with diagram. [6]  
b) What is opcode and operand ? How machine instruction is represented in X86? [6]

P.T.O.

- Q.5 a) Discuss in detail [6]  
1. Instruction level and machine level parallelism  
2. Instruction Issue Policy
- b) Enlist and explain Use visible registers and control and status registers [7]  
OR
- Q.6 a) Draw and explain Instruction cycle state diagram [7]  
b) Enlist features of 8086 microprocessor. [6]
- Q.7 a) Write a Control Sequence for Conditional Branch Instruction? [7]
- b) Explain How to Fetching a word from Memory and how to store a Word into Memory ? [6]  
OR
- Q. 8 a) Explain in detail State Table Design Method for Hardwired Control? [7]  
b) Explain Vertical Microinstruction format [6]