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Seat No.	
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**[4757]-1049**

**S.E. (Electronics/E&TC) (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) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.

(iv) Assume suitable data, if necessary.

1. (a) Explain different functional units of Computer Organization. [6]

(b) Give the IEEE standard for floating point numbers for : [6]

(i) single precision number

(ii) double precision number.

P.T.O.

*Or*

2. (a) Explain single bus structure and multi bus structure. [6]  
(b) Represent  $(-13)$  multiple in booth's record format and bit pair recorded format. [6]
3. (a) Write down control sequence for the instruction move (R1), R2. [6]  
(b) Explain the following standards : [6]  
(i) PCI  
(ii) SCSI  
(iii) USB.

*Or*

4. (a) Compare horizontal microinstruction and vertical microinstruction. [6]  
(b) Write a short note on interrupt driven Input/Output. [6]
5. (a) Explain cache memory. Why is it used ? [6]  
(b) Write a note on semiconductor RAM memories. [7]

*Or*

6. (a) Write a note on a synchronous DRAM. [6]  
(b) Explain the connection of the memory to the processor. [7]

7. (a) List out addressing modes of 8086. [6]  
(b) Explain interrupt structure of 8086. [7]

*Or*

8. (a) Draw Flag Structure of 8086 and explain operation of each flag. [7]  
(b) Explain Logical to physical addressing of 8086. [6]