

Total No. of Questions—8]

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<b>Seat No.</b>	
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**[4757]-1079**

**S.E. (Computer) (Second Semester) EXAMINATION, 2015**

**COMPUTER ORGANIZATION**

**(2012 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

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

(iv) Assume suitable data, if necessary.

1. (a) Differentiate between microprocessor and micro-controller. [6]

(b) What is the need of coprocessor ? How is it interface with CPU ? [6]

P.T.O.

*Or*

2. (a) What are the factors to be considered for processor level parallelism ? [6]
- (b) Differentiate between RISC and CISC. [6]
3. (a) Explain the design of multiplier control unit using Delay Element method. [6]
- (b) What is microprogrammed control unit design ? Draw and explain basic structure of micro-programmed control unit. [7]

*Or*

4. (a) Write a short note on sequential ALU. [7]
- (b) Write and explain control sequence for ADD [R3], R1. [6]
5. (a) Compare memory mapped I/O and IO mapped I/O. [4]
- (b) What are different types of bus interfaces ? Explain in detail USB bus organization. [8]

*Or*

6. (a) Write a short note on Intel Nehalem memory organization. [6]
- (b) What is need of DMA ? How it works ? [6]

7. Write short notes on (any *two*) : [13]

- (i) AMD Multicore Opteron
- (ii) IBM Cell Broadband Engine
- (iii) Power PC.

*Or*

8. (a) What do you mean by 64 bit architectures ? What are features of it ? [6]

(b) What are the features of IA-64 model ? [7]