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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]