December 2006

Bachelor of Computer Application (BCA) Examination
V Semester

Computer Organisation and Architecture

Time : 3 Hours]　　　　　　　　　　　　[Max. Marks : 40

Note : Attempt all questions.

1. (a) Write brief history of Pentium and Power PC Evolution.
   (b) List and briefly define various bus interconnections.

OR

(a) What is difference between Computer Organisation and Computer Architecture?

(b) Describe processor-memory-I/O inter connection and few main control signals connecting processor and memory.

2. (a) Draw the cell structure of a bit in memory.
   (b) Describe the read and write mechanism from a secondary storage device.

OR

(a) Define (i) Cache Memory (ii) Optical Memory (iii) RAID.

(b) Define RAID levels ϕ; 1 and 5.

3. (a) Define zero address and single address instructions with an example.
   (b) What is difference between Assembly Language and Machine Language?
   (c) What is difference between Shift and Rotate Operation?

OR

(a) Describe instruction format with an example.

(b) What is an Addressing Mode? Describe indirect addressing mode with an example.

4. (a) What is difference between Hardwired and Microprogrammed implementation of a control unit?

(b) Describe the process of instruction execution in a microprogrammed environment.

OR

Write short notes on :

(a) Microprogrammed Control

(b) Micro Operations

(c) Microprogramming Applications.

5. (a) List three broad classification of external or peripheral devices and describe one of them.
   (b) What is difference between Memory mapped I/O and I/O mapped I/O ?

OR

(a) List and briefly define three techniques for performing I/O.

(b) What is difference between Serial and Parallel Interface?

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