DIPLOMA IN ELECTRICAL ENGINEERING (DELVI)/ADVANCED LEVEL CERTIFICATE COURSE IN ELECTRICAL ENGINEERING (ACELVI)

Term-End Examination

December, 2015

BIEE-032 : PRINCIPLES OF COMPUTER ARCHITECTURE

Time : 2 hours   *Maximum Marks : 70*

*Note : Attempt **five** questions in all. Question no. 1 is **compulsory**. All questions carry equal marks.*

1. (a) What is the full form of CRT ?   *7×2=14*
        (i)   Crystal Report within Time
        (ii) Cathode Ray Tube
        (iii) Both (i) and (ii)
        (iv) None of the above

    (b) The two types of RAM are
        (i)   Volatile and Non-volatile
        (ii) SRAM and DRAM
        (iii) Erasable and Electrical
        (iv) None of the above

(c) RAM is a _____ memory.

   (i)   Volatile

   (ii) Non-volatile

   (iii) Both (i) and (ii)

   (iv) None of the above

(d) What is the full form of SATA ?

   (i)   Serial AT Attachment

   (ii) Sun AT Attachment

   (iii) Storage AT Attachment

   (iv) None of the above

(e) A memory has a capacity of 2k × 8. What is the capacity in bytes ?

   (i)   2048 bytes

   (ii) 4096 bytes

   (iii) 1024 bytes

   (iv) None of the above

(f) Output device is

   (i)   Keyboard

   (ii) Mouse

   (iii) Joystick

   (iv) None of the above

(g) NOR Gate is the combination of

(i) OR + NOT Gate

(ii) AND + NOT Gate

(iii) XOR + NAND Gate

(iv) None of the above

2. (a) What is an ISA ? Write the features of ISA. 7

(b) Differentiate between PCI and PCI-Express. 7

3. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$

(a) PATA

(b) CD ROM

(c) Formatting Hard Disk

(d) ROM

4. (a) Explain the video accelerator card with a diagram. 7

(b) Explain the working principle of LCD monitor. 7

5. (a) What is AT and ATX connector ? Explain with a diagram. 7

(b) What are SCSI cables and connectors ? Explain SCSI configuration. 7

6. (a) What are the various types of printers ? Explain laser printer. *7*

(b) Describe any two mapping procedures for organisation of Cache memory. *7*

7. Discuss the construction and working of a Magnetic Disk. Also discuss the various components of Disk access time with the help of a suitable diagram. *14*

8. Write short notes on any *four* of the following : $4 \times 3\frac{1}{2} = 14$

(a) ESD

(b) Scanner

(c) Trouble-shooting

(d) Working of UPS

(e) Input Devices

(f) Recording Technique : RM, MFM