

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

Term-End Examination

00105

December, 2014

**BIEE-032 : PRINCIPLES OF COMPUTER
ARCHITECTURE**

Time : 2 hours

Maximum Marks : 70

Note : *Question no. 1 is compulsory. Attempt any four questions from questions no. 2 to 8.*

1. Choose the correct option.

7×2=14

(a) Where is the boot sequence changed ?

(i) BOOT CFG.EXE

(ii) CMOS Setup

(iii) MSD

(iv) ESD

(b) Which of the following are impact printers :

(i) Dot Matrix Printers

(ii) Deskjet Printers

(iii) Inkjet Printers

(iv) Laser Printers

- (c) Which of the following is **not** a common PC Bus expansion :
- (i) ISA
 - (ii) PCI
 - (iii) OSB
 - (iv) PCI-Express
- (d) A system that keeps losing the time and date could be most likely caused by
- (i) System battery going dead
 - (ii) Virus effect
 - (iii) CD drive failure
 - (iv) Bad sectors
- (e) What component is installed in an ESD Strap to prevent shock ?
- (i) Resistor
 - (ii) Capacitor
 - (iii) Wire
 - (iv) SIMM
- (f) Where are ROM BIOS routines stored ?
- (i) Hard disk
 - (ii) Floppy disk
 - (iii) CMOS
 - (iv) Hard disk controller

- (g) An IDE hard disk drive cable has how many pins ?
- (i) 10
 - (ii) 34
 - (iii) 40
 - (iv) 50
2. Draw the layout of the North and South Bridge. Explain the various functions supported by each bridge. 14
3. (a) Differentiate between Low Level Formatting and High Level Formatting. 7
- (b) Describe FM, MFM and Data Encoding schemes. 7
4. (a) Differentiate between CRT display and LCD display. 7
- (b) Differentiate between Non-interlaced and Interlaced monitor. 7
5. Draw the block diagram for Printer Controller Logic of Dot Matrix Printer. Explain the various problems that occurred in the printers. 14
6. Draw the block diagram of SMPS and explain the working of each unit. 14
7. Describe the various steps taken for preventive maintenance of peripherals of PC. Write the general precautions to be taken during the maintenance of a PC. 14

8. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) BIOS
 - (b) Video Bandwidth
 - (c) PATA
 - (d) Flat Bed Scanner
 - (e) Partitioning of Hard disk
 - (f) RLL Encoding technique
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