

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

00966

Term-End Examination

June, 2015

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

Time : 2 hours

Maximum Marks : 70

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

1. Choose the correct answer for the following : $7 \times 2 = 14$

- (a) 8 bits is equal to
- (i) 1 byte
 - (ii) 2 bytes
 - (iii) 4 bytes
 - (iv) None of the above
- (b) What is the full form of LCD ?
- (i) Light Crystal Display
 - (ii) Liquid Crystal Display
 - (iii) (i) and (ii) both
 - (iv) None of the above

- (c) ROM is a
- (i) Read only memory
 - (ii) Read-write memory
 - (iii) (i) and (ii) both
 - (iv) None of the above
- (d) What is the full form of PATA ?
- (i) Parallel AT attachment
 - (ii) Principal AT attachment
 - (iii) Power AT attachment
 - (iv) None of the above
- (e) Which one of the following is an input device ?
- (i) LCD
 - (ii) Joystick
 - (iii) Printer
 - (iv) None of the above
- (f) A memory has a capacity of $4k \times 8$. What is the capacity in bytes ?
- (i) 4000 bytes
 - (ii) 2048 bytes
 - (iii) 4096 bytes
 - (iv) None of the above
- (g) 'NAND Gate' is a combination of 'AND + OR'. (True/False)

2. Explain the following :

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

- (a) DDR
- (b) SRAM
- (c) ROM
- (d) BIOS Basics

3. (a) What is Printer ? What are the various types of printers ?

7

(b) Explain the working of a modem. Differentiate between external and internal modems.

7

4. Define cache memory. Discuss the cache organisation by Direct mapping and Set-Associative mapping.

14

5. Discuss the construction and working of a Hard Disk. Define the terms Track, Sector, Cylinder and Formatting.

14

6. (a) Draw the block diagram and working of SMPS.

7

(b) Discuss 'UPS' with its working.

7

7. (a) Explain the working of Logic Probe with a diagram.

7

(b) Differentiate between active preventive maintenance and passive preventive maintenance.

7

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

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

- (a) Resolution
 - (b) CRT Monitor
 - (c) Video Accelerator Card
 - (d) LCD Display
 - (e) DVD ROM
 - (f) ISA
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