

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

00044

**Term-End Examination**

**June, 2014**

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

*Time : 2 hours*

*Maximum Marks : 70*

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

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1. Choose the correct option :

$2 \times 7 = 14$

(a) SDRAM stands for

- (i) Synchronous Dynamic Random Access Memory
- (ii) Static Dynamic Random Access Memory
- (iii) Single Dynamic Random Access Memory
- (iv) Synchronous Dual Random Access Memory

- (b) Which one of the following is **not** a recording technique ?
- (i) MFM
  - (ii) RLL
  - (iii) FM
  - (iv) EFM
- (c) What primary precaution should you take when replacing a keyboard ?
- (i) Completely power down the system
  - (ii) Turn off the keyboard
  - (iii) Wear an ESD strap
  - (iv) Use a screw driver
- (d) Where is IDE hard disk configuration information kept ?
- (i) Hard disk controller
  - (ii) CMOS
  - (iii) Config.sys
  - (iv) Autoexec.bat
- (e) How many pins does a Standard Serial port contain ?
- (i) 15
  - (ii) 20
  - (iii) 9
  - (iv) 40

- (f) A 25-pin D shell connector is most often used for
  - (i) Serial port
  - (ii) Parallel port
  - (iii) SCSI port
  - (iv) Mouse port
  
- (g) Which component is *not* tested by the POST routines ?
  - (i) RAM
  - (ii) CPU
  - (iii) Mother-board
  - (iv) Power Supply
  
- 2. (a) What is PCI Express ? How is it better than PCI ? 7
- (b) What are various functions supported by North and South Bridge ? 7
  
- 3. Explain the working of CD-ROM drive with diagram. 14
  
- 4. Draw the block diagram showing the internet hardware of CRTC (Monitor). Explain the function of each block. 14
  
- 5. Compare Inkjet printers with Laser printers Describe the function of various parts of Laser printer. 14

6. (a) Draw the pin diagram of ATX power connector and label each pin. 7
- (b) Explain what are the various faults that occur in the power supply. 7
7. Describe various steps for preventive maintenance of peripherals of PC. Write general precautions to be taken during maintenance of a PC. 14
8. Write short notes on any *four* of the following :
- $4 \times 3 \frac{1}{2} = 14$
- (a) Head parking
- (b) ESD
- (c) Surge suppressor
- (d) L2 cache
- (e) RLL Encoding technique
- (f) BIOS
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