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

Term-End Examination

June, 2012

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

Time : 2 Hours

Maximum Marks : 70

Note : Attempt any five questions and question number 1 is compulsory which has multiple choice questions.

1. (a) BIOS is stored in : 2
- (i) RAM (ii) Floppy disk
(iii) Hard disk (iv) ROM
- (b) The combination of 16 bits is known as : 2
- (i) Bit (ii) Byte
(iii) Nibble (iv) Word
- (c) Which memory chip is programmed during the manufacturing process ? 2
- (i) ROM (ii) RAM
(iii) PROM (iv) EEPROM

- (d) The two types of RAM are : 2
- (i) Volatile and Non volatile
 - (ii) Erasable and Programmable
 - (iii) Static and Dynamic
 - (iv) None of above
- (e) For a ROM used to store the table for multiplication of two 8-bit unsigned integers, the size of ROM required is : 2
- (i) 256 x 16 (ii) 64K x 8
 - (iii) 4K x 16 (iv) 64K x 16
- (f) Which of the following operation is commutative but not associative ? 2
- (i) AND (ii) OR
 - (iii) NAND (iv) XOR
- (g) Which of the following is the most widely used bipolar family ? 2
- (i) DTL (ii) TTL
 - (iii) ECL (iv) All of above
2. Discuss construction and working of a magnetic disk. Also discuss various component of disk access time with the help of a suitable diagram. 14
3. Discuss various mode of data transfer. Also discuss how DMA mode is better than other modes ? 14

4. (a) Draw the block diagram of SMPS and how it works ? 7
(b) Explain the working principle of LCD monitor with suitable diagram. 7
5. (a) Describe any two mapping procedures for Organisations of cache memory with examples. 7
(b) What are the various types of printers ? Explain Dot matrix printer in detail. 7
6. Explain the following terms : 14
(a) SDRAM
(b) DDR
(c) DDR2
(d) DDR3
7. What is the scanner ? What are the various types of scanners ? Also draw the block diagram of a scanner. 14
8. Write short notes on (*any four*) : 3.5x4=14
(a) ATX Connectors.
(b) UPS
(c) LCD Monitor
(d) MBR
(e) Video Accelerator Card
(f) ISA
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