

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

Term-End Examination

December, 2011

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

Time : 2 hours

Maximum Marks : 70

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

1. (a) The expansion for DOS is : **7x2=14**
- (i) Directory Oriented System
 - (ii) Disk Operating System
 - (iii) Direct - On-line Software
 - (iv) Dual - Operation Solution
- (b) The SMPS in a computer system gives the following output :
- (i) +12V (ii) +5V
 - (iii) - 5V (iv) All of above
- (c) BIOS is :
- (i) Hardware (ii) Software
 - (iii) Firmware (iv) Integrated chip
- (d) SCSI is :
- (i) an Input device
 - (ii) a Software
 - (iii) an interface
 - (iv) a host adapter

- (e) IDE can support maximum of :
- (i) 2 devices (ii) 1 device
 - (iii) 4 devices (iv) 8 devices
- (f) The data transfer rate of a single speed CD Drive is :
- (i) 650 MB (ii) 150 kbps
 - (iii) 74 min. (iv) 200 rpm
- (g) The AT extended keyboard has :
- (i) 84 keys (ii) 83 keys
 - (iii) 101 keys (iv) 104 keys
2. (a) Draw the Block diagram of Mother board and also explain its components. 7
- (b) What do you mean by memory organisation ? Differentiate between extended and expanded memory. 7
3. (a) Describe the reading and recording principle of a CD-ROM. 7
- (b) What is difference between low - level formatting and high level formatting of Floppy disk ? Explain in brief. 7
4. (a) What do you mean by Modem ? Differentiate between external and Internal Modem. 7
- (b) Explain the working principle of DOT - Matrix Printer. 7

5. (a) Draw the block diagram of SMPS and explain its working. 7
- (b) Explain the following power supply problems. 7
- (i) Blackout (ii) Brown out
- (iii) Surges (iv) Spikes
6. (a) Draw the different parts of CRT and explain its principle of operation. 7
- (b) Briefly explain the different characteristics of CRT Monitor. 7
7. (a) Draw the RS - 232 pinout specifications. 7
- (b) What do you mean by preventive maintenance ? Explain the different types of preventive maintenance. 7
-