

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

Term-End Examination

December, 2013

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

Time : 2 Hours

Maximum Marks : 70

Note : Attempt five questions and question number 1 is compulsory.

1. (a) The expansion of 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 an computer system gives the following output :
- (i) +12V
 - (ii) +5V
 - (iii) -5V
 - (iv) All of the above.
- (c) BIOS is :
- (i) Hardware
 - (ii) Software
 - (iii) Firmware
 - (iv) Integrated chip

- (d) IDE can support maximum of :
 - (i) 2 devices
 - (ii) 1 device
 - (iii) 4 devices
 - (iv) 8 devices
 - (e) The AT extended keyboard has :
 - (i) 84 keys
 - (ii) 83 keys
 - (iii) 101 keys
 - (iv) 104 keys
 - (f) The data transfer rate of a single speed CD Drive is :
 - (i) 650 MB
 - (ii) 150 kbps
 - (iii) 74 mm
 - (iv) 200 rpm
 - (g) SCSI is :
 - (i) an input device
 - (ii) a software
 - (iii) an interface
 - (iv) a host adapter
2. (a) Draw the Rs. 232 pinout specification. **7x2=14**
- (b) Briefly explain the working principle of CRT with neat sketch.
3. (a) Explain the working principle of DOT-Matrix Printer ? **7x2=14**
- (b) What do you mean by MODEM? Differentiate between External and Internal Modem.

4. (a) Draw the Block diagram of the Mother Board and also explain its components. **7x2=14**
(b) Explain the following power supply problems.
(i) Black out
(ii) Brownout
(iii) Surges
(iv) Spikes
5. (a) Draw the block diagram of SMPS and explain its working. **7x2=14**
(b) Describe the reading and recording principle of CD-ROM.
6. (a) What do you mean by memory organisation? Differentiate between extended and expanded memory. **7x2=14**
(b) Briefly explain the different characteristics of CRT monitor.
7. (a) Draw the block diagram of a scanner and explain its operation. **7x2=14**
(b) Explain different types of Protection devices used in Power supplies.
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