

**DIPLOMA - VIEP - COMPUTER SCIENCE AND
ENGINEERING (DCSVI)/ADVANCED LEVEL
CERTIFICATE COURSE IN CSE (ACCSVI)**

Term-End Examination

December, 2012

BICS-027 : COMPUTER ORGANIZATION

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions in all. Question number 1 is compulsory which is multiple choice question.

1. (a) Which is not a sequential circuit ? 2
- (i) Register
 - (ii) Full Adder
 - (iii) MUX
 - (iv) None of these
- (b) $(1217)_8$ is equivalent to : 2
- (i) $(1217)_{16}$ (ii) $(028 F)_{16}$
 - (iii) $(2297)_{10}$ (iv) $(0817)_{16}$
- (c) Error detection at data link level is achieved 2
by :
- (i) Bit stuffing
 - (ii) Cyclic redundancy code
 - (iii) Hamming code
 - (iv) Equalization

- (d) End to end connectivity is provided from host to host in : 2
- (i) Network Layer
 - (ii) Transport Layer
 - (iii) Session Layer
 - (iv) Application layer
- (e) Which of the following are single user operating system : 2
- (i) MS - DOS
 - (ii) UNIX
 - (iii) XENIX
 - (iv) OS/2
- (f) Tera is 2 to the power of : 2
- (i) 32
 - (ii) 30
 - (iii) 40
 - (iv) 25
- (g) The number of possible Boolean functions that can be defined for n Boolean variables over n - valued Boolean Algebra is : 2
- (i) 2^{2^n}
 - (ii) 2^{n^2}
 - (iii) n^{2^n}
 - (iv) n^{n^n}
2. (a) Differentiate between ASCII and EBCDIC Codes. 6
- (b) What is Hamming code ? Explain with examples. 8
3. (a) Discuss the functioning of TCP/IP Protocol. 6
- (b) What are the Network topologies ? Explain with examples. 8

4. (a) Differentiate between time sharing and Real time operating system. 7
- (b) Describe the features of various generations of computer. 7
5. (a) What is the operating system ? Explain it's types and applications. 7
- (b) Explain the Block structure of computer and its working with neat diagram. 7
6. (a) Explain the followings with reference to floating point representation. 7
- (i) IEEE standard
- (ii) Normalization
- (iii) Biasing
- (iv) Auto Flow and under Flow
- (b) Find the decimal equivalent of the following : 7
- (i) $(134.2)_5$
- (ii) $(1212.2)_3$
- (iii) $(AAB.A)_{16}$
- (iv) $(346.6)_8$
- (v) $(101011.1)_2$

7. What is the Computer Network ? Write down the application of computer and computer Network in business, Railways and hospital management system. **14**

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

3.5x4=14

- (a) TCP/IP Protocol
 - (b) GUI operating system
 - (c) Generations of computers
 - (d) Remote sensing
 - (e) Decision support system
 - (f) Inventory control
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