

**DIPLOMA - VIEP - COMPUTER SCIENCE AND  
ENGINEERING (DCSVI)**

**Term-End Examination  
December, 2014**

**BICSE-006 : ELECTIVE-COMPUTER NETWORKS**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** Answer any *five* questions. Question no. 1 is *compulsory*. All questions carry equal marks.

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1. (a) A modem is connected between a telephone line and a  $7 \times 2 = 14$
- (i) Network
  - (ii) Computer
  - (iii) Communication Adapter
  - (iv) Serial Port
- (b) The slowest transmission speeds are of
- (i) Twisted pair cable
  - (ii) Coaxial cable
  - (iii) Fiber optics cable
  - (iv) Microwave

- (c) The Network 198.168.0.1 is a
- (i) Class A Network
  - (ii) Class B Network
  - (iii) Class C Network
  - (iv) Class D Network
- (d) A Router
- (i) screens incoming information
  - (ii) distributes information between networks
  - (iii) clears all viruses from a computer system
  - (iv) All the above
- (e) A physical path that is used for sending information is called
- (i) Channel
  - (ii) Line
  - (iii) Link
  - (iv) All the above
- (f) Which of the following items is *not* a UTP cable ?
- (i) CAT 2
  - (ii) CAT 3
  - (iii) CAT 100
  - (iv) CAT 5
- (g) The amount of data that can be transferred across a communication media is called
- (i) Base Band
  - (ii) Bandwidth
  - (iii) Network
  - (iv) All the above

2. (a) Draw the OSI Reference model and explain the functions of different layers. 10
- (b) Compare wired and wireless media. 4
3. (a) Draw and explain the frame structure of HDLC. 7
- (b) What is Piggybacking ? Explain Go back N and Selective Repeat ARQ protocol. 7
4. (a) What is ALOHA ? Why is the channel throughput doubled in slotted ALOHA compared to pure ALOHA ? 7
- (b) What are the IEEE standards ? Discuss the token format of IEEE 802.5. 7
5. (a) What is congestion control ? Differentiate between congestion control and flow control. 7
- (b) Differentiate between the Static and Dynamic Routing with their pros and cons. 7
6. (a) Explain about the TCP header and working of the TCP protocol. 7
- (b) How many layers are there in X.25 protocol ? Discuss the functions of these layers. 7

7. (a) What is the difference between Static and Dynamic web page ? Explain the structure of interface between access of a database over web pages. 7
- (b) What do you mean by Frame relay ? Is it connection-oriented or connection-less ? Explain. 7
8. Explain any *four* of the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) Switching
  - (b) ATM
  - (c) Bridges
  - (d) IPv6
  - (e) LDAP
  - (f) Service Primitives
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