

**DIPLOMA VIEP COMPUTER SCIENCE  
ENGINEERING (BTCSVI)**

**Term-End Examination**

**December, 2013**

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

*Time : 2 hours*

*Maximum Marks : 70*

*Note : Attempt any five questions. Question No.1 is compulsory. All questions carry equal marks.*

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1. Choose the correct answer : **7x2=14**
- (a) \_\_\_\_\_ provide a connection-oriented reliable service for sending message.
- (i) TCP
  - (ii) IP
  - (iii) UDP
  - (iv) All of above.
- (b) The last Address of IP Address represents.
- (i) Unicast Address.
  - (ii) Network Address.
  - (iii) Broadcast Address.
  - (iv) None of above.
- (c) In IP Addressing which of the following is correct regarding class-B Address ?
- (i) Network bit-14, Host bit-16.
  - (ii) Network bit-16, Host bit-14.
  - (iii) Network bit-18, Host bit-16.
  - (iv) Network bit-12, Host bit-14.

- (d) Address 192.6.48.2 belongs to
- (i) Class A
  - (ii) Class B
  - (iii) Class C
  - (iv) Class D
- (e) Protocol used to monitor and control the network devices operates at.
- (i) Application layer.
  - (ii) Transport layer
  - (iii) Network layer
  - (iv) Data link layer
- (f) Which layer is Not present in TCP/IP model ?
- (i) Application layer.
  - (ii) Internet layer.
  - (iii) Transport layer.
  - (iv) Presentation layer.
- (g) In TCP protocol header "Checksum" is of \_\_\_\_\_ .
- (i) 8 bits.
  - (ii) 16 bits.
  - (iii) 32 bits.
  - (iv) 64 bits.
2. (a) Explain OSI reference model in detail. 7
- (b) What is meant by frame relay? Write the advantages of Frame relay. 7
3. (a) What types of services are provided by a data link layer? Explain in detail. 7
- (b) Briefly explain the sliding window protocol. 7

4. (a) What is Ethernet? Explain the frame format of Standard Ethernet. 7  
(b) Differentiate between FDMA and TDMA and explain how ALOHA is useful to overcome the deficiencies of FDMA and TDMA? 7
5. (a) What is the need of congestion control ? Explain the difference between congestion control and flow control. 7  
(b) Compare IPV 4 and IPV 6. 7
6. (a) What do you mean by socket? List the types of socket and explain it. 7  
(b) Explain about the various fields of TCP header with the help of a neat diagram. 7
7. (a) What do you mean by principles of MIME ? 5  
(b) Explain about addressing used in DNS. 5  
(c) Explain in brief SMTP. 4
8. Attempt **any four** parts from the following : **4x3.5=14**  
(a) Wireless LAN.  
(b) HDLC  
(c) CSMA/CD.  
(d) Connectionless and connection-oriented services.  
(e) Crash Recovery.  
(f) ICMP.
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