

**B.Tech. – VIEP – ELECTRONICS AND
COMMUNICATION ENGINEERING
(BTECVI)**

Term-End Examination

June, 2015

**BIEL-021 : COMPUTER COMMUNICATION
NETWORKS**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks. Missing data, if any, may be suitably assumed.

1. (a) What are the types of topologies used when customers are in an area using DSL modems for data transfer purposes ? Explain. 5
- (b) Explain the functions of each layer in OSI model. 5
2. What do you mean by flow control ? Also explain the role of sliding window protocols in detail. 10
3. (a) Compare and contrast random access protocol with a channelizing protocol. 5
- (b) What do you understand by non-persistent CSMA ? 5

4. (a) Differentiate between wired and wireless LANs. 5
- (b) Discuss briefly the services provided by wireless LAN IEEE 802.11. 5
5. (a) What are the differences among a unicast, a multicast and a broadcast address ? 3
- (b) Explain the concept of Backbone and Virtual LANs. 7
6. What are the differences between classful and classless addressing in IPv4 ? What is NAT ? How can NAT help in address depletion ? 10
7. (a) What is the difference between a direct and an indirect delivery ? 2
- (b) Discuss the role of bridge, router and gateway in Internet connection. 4
- (c) Describe briefly multicast routing protocols. 4
8. What is UDP ? Explain UDP format. Also mention its applications. 10
9. (a) Find the netid, hostid and class of the IP address given by 14.23.120.8. 3
- (b) Explain the character oriented protocol and bit oriented protocol related to the data link layer. 5
- (c) What is a peer-to-peer process ? 2

10. Write short notes on any *two* of the following : *2×5=10*

- (a) DNS
 - (b) TCP
 - (c) HDLC
 - (d) Connecting LANs
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