

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

00665

Term-End Examination

June, 2019

**BIEL-021 : COMPUTER COMMUNICATION
NETWORKS**

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **seven** questions. Missing data, if any, may be suitably assumed. Use of scientific calculator is permitted.*

1. Define Computer Network. Discuss various types of networks topologies with their advantages and disadvantages. 10

2. Define OSI model. Explain the protocols and services of each layer. 10

3. (a) What is the difference between OSI model and TCP/IP model ? 5

- (b) What is the difference between wireless and wired network ? 5

4. (a) Draw and explain each field in the TCP segment header. 5
 - (b) What is the difference between TCP and UDP protocols ? 5
 5. (a) What is the difference between fixed framing and variable length framing ? 5
 - (b) Compare the WAN, LAN and MAN topologies. 5
 6. What is IPv6 address ? Define its frame format with description of each field. 10
 7. Explain Broadcast routing algorithm with an example. 10
 8. Compare and contrast FDMA, TDMA and CDMA techniques. 10
 9. Differentiate between multicast routing protocols and unicast routing protocol. 10
 10. Write short notes on any **two** of the following : 2×5=10
 - (a) Noiseless Channel and Noisy Channel
 - (b) Gigabit Ethernet
 - (c) Wireless LAN IEEE 802.11
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