

Roll No. ....

**3228**

**B. Tech. 5th Semester (CSE)  
Examination – December, 2022**

**COMPUTER NETWORKS**  
Paper : PCC-CSE-303-G

*Time : Three hours ]*

*[ Maximum Marks : 75*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt any *five* questions. Question No. 1 is *compulsory*. Selecting *one* question from each Section.

- 1.** Define the following : **2.5 × 6 = 15**
- (a) Token Ring
  - (b) ARP
  - (c) Types of topologies
  - (d) Firewall

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- (c) ATM
- (f) Router

**SECTION – A**

- 2. (a) Explain different types of topologies with their advantages and disadvantages. 8
- (b) Differentiate between connectionless and connection-oriented services. 7
- 3. Discuss the OSI model with suitable diagram. 15

**SECTION – B**

- 4. Explain IPv6 with diagram and discuss the role of routers and hub in a network. 15
- 5. Discuss the Medium Access control layer functions in detail. 15

**SECTION – C**

- 6. Explain routing and congestion control in detail. 15
- 7. Explain different Application Layer protocols of TCP/IP. 15

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**SECTION – D**

- 8. Explain the SONET/SDH. Also explain the SONET architecture. 15
- 9. (a) Explain the cryptography technique for network security. 8
- (b) Discuss the concept of Quality of Service provided for a network. 7

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