

Roll No.

24328

**B. Tech. (CSE) 6th Semester
(Reappear) Examination – October, 2020**

COMPUTER NETWORK

Paper : IT-305-F

Time : 1.45 Hours]

[Maximum Marks : 100

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 *three* questions. All questions carry equal marks.

1. Write short note on the following :

- (a) ARPANET
- (b) Disadvantage of ring topology
- (c) ARP
- (d) Domain Name System
- (e) Hub v/s Switch
- (f) Aloha

- (g) Disadvantages of frame relay
 - (h) Proxy servers
2. (a) Explain different types of networks and the factors that determine whether a communication system is a LAN, MAN, or WAN.
- (b) What are the advantages of a multipoint connection over a point-to-point connection.
3. Explain OSI model in detail with the functions, services and protocols of each layer.
4. (a) Explain IP addressing and IP address classes.
- (b) Draw the TCP header format and explain the function of each field.
5. (a) How do the layers of the TCP/IP protocol suite correlate to the OSI model ?
- (b) Write short note on NNTP and HTTP.
6. (a) Compare the different characteristics of a standard Ethernet, fast Ethernet and gigabit Ethernet.
- (b) Describe the slot reservation method in DQDB.
7. (a) What is CSMA scheme ? Discuss non-persistent, 1-persistent and P- persistent CSMA with a diagram.

- (b) Explain different methods of congestion control in WAN.

8. (a) Discuss the function of each SONET layer.
- (b) Discuss various quality of service in network management.
9. (a) Describe the format of an ATM cell.
- (b) Discuss various types of firewalls.
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