

- Q.14 Explain various functions of transport layer of OSI model.
- Q.15 Explain various protocols which works in application layer of OSI model.
- Q.16 List any five differences between LAN and WAN.
- Q.17 Discuss how TCP ensures reliable communication. Give examples of scenarios where TCP is preferred.
- Q.18 Write short note on network addressing.

SECTION-C

Note: Long answer type questions. Attempt any one questions out of two questions. (10x1=10)

- Q.19 What do you mean by IPv4 addresses. How IPv4 addresses are assigned to the devices. List various reasons of using IPv4 addresses.
- Q.20 What do you mean by MAC addresses. Explain the role of data link layer in MAC addressing and data framing.

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(Level 4) Sem. II/Trade SD
Subject : Computer Networks

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Multiple choice Questions. All questions are compulsory (10x1=10)

- Q.1 What is the primary role of communication in computer networks?
a) To provide security b) To increase latency
c) To enable data exchange d) To limit accessibility
- Q.2 Which model is commonly used to understand network communication in layers?
a) The Seven-Layer Model
b) The Internet Model
c) The Network Model
d) The Three-Layer Model
- Q.3 What is the primary function of the transport layer?
a) Addressing packets
b) Routing data
c) End-to-end communication and data transfer
d) Physical data transmission

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- Q.4 Which layer of the OSI model is responsible for logical addressing, routing, and path determination?
- a) Application Layer
 - b) Transport Layer
 - c) Network Layer
 - d) Data Link Layer
- Q.5 Which layer of the OSI model is responsible for MAC techniques and MAC addressing?
- a) Network Layer
 - b) Data Link Layer
 - c) Transport Layer
 - d) Presentation Layer
- Q.6 What is the purpose of IPv4 addresses in networking?
- a) To identify the physical location of a device
 - b) To differentiate between data link layer frames
 - c) To assign a unique identifier to each host on the network
 - d) To ensure secure data transmission
- Q.7 Which of the following is NOT a valid IPv4 address class?
- a) Class A
 - b) Class B
 - c) Class C
 - d) Class D

- Q.8 Which layer of the OSI model is responsible for MAC techniques and MAC addressing?
- a) Network Layer
 - b) Data Link Layer
 - c) Transport Layer
 - d) Presentation Layer
- Q.9 What is the function of MAC addressing in the Data Link Layer?
- a) Identifying the physical location of a device
 - b) Identifying the logical location of a device
 - c) Differentiating between data packets
 - d) Assigning IP addresses
- Q.10 Which of the following is not a valid IPv4 address?
- a) 192.168.1.256
 - b) 203.45.12.87
 - c) 10.0.0.1
 - d) 172.16.0.0
- ### SECTION-B
- Note:** Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)
- Q.11 Explain various functions of data link layer of OSI model.
- Q.12 Explain the processes involved in handling data packets within a network.
- Q.13 Explain the concept of assigning and calculating IPv4 addressing.