

**BACHELOR OF COMPUTER APPLICATION
FOURTH SEMESTER
COMPUTER NETWORKS
BCA - 402.1**

(Use Separate Answer Scripts for Objective & Descriptive)

Duration : 3 hrs.

Full Marks : 70

[PART-A: Objective]

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1X20=20

1. What does LAN stand for?
 - a. Local array net
 - b. Local area network
 - c. Local allocation Network
 - d. None
2. Identify among the following servers which allow LAN users to share data
 - a. Communication server
 - b. Point server
 - c. Data server
 - d. File server
3. TCP/IP Model does not have
 - a. Transport layer
 - b. Application layer
 - c. Network layer
 - d. Session layer
4. Physical or Logical arrangement is
 - a. Networking
 - b. Routing
 - c. Topology
 - d. None of the above
5. Multi point connection requires
 - a. Bus Topology
 - b. Ring Topology
 - c. Star Topology
 - d. Mesh topology
6. Identify the switching method in which the message is divided into small packets
 - a. Virtual switching
 - b. Packet switching
 - c. Network switching
 - d. None of the above
7. A single channel is shared by multiple signals by _____
 - a. Multiplexing
 - b. Digital modulation
 - c. Analog modulation
 - d. None of the above
8. What does MAC stand for
 - a. Mass Access Control
 - b. Minimum access Control
 - c. Media access carriage
 - d. None of the above
9. What of the following device is used in the network layer
 - a. Application gateway
 - b. switch
 - c. Router
 - d. repeaters
10. Identify the layer which is responsible for data translating
 - a. Network
 - b. Data link
 - c. Presentation
 - d. Application

11. The slowest transmission speeds are those of
 - a. Coaxial cable
 - b. Twisted-pair wire
 - c. Fiber-optic cable
 - d. Microwaves
12. IEEE has defined the specifications for a wireless LAN called _____, which covers the physical and data link layers
 - a. ieee 802.3
 - b. ieee 802.5
 - c. ieee 802.6
 - d. ieee 802.11
13. Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
 - a. cdma
 - b. Cdma/cd
 - c. Cdma/ca
 - d. None of the above
14. What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?
 - a. Application
 - b. Host-to-Host
 - c. Internet
 - d. Network
15. You want to implement a mechanism that automates the IP configuration, including IP address, subnet mask, default gateway, and DNS information. Which protocol will you use to accomplish this?
 - a. SMTP
 - b. SNMP
 - c. DHCP
 - d. ARP
16. Which of the following is private IP address?
 - a. 192.168.24.43
 - b. 168.172.19.39
 - c. 172.15.14.36
 - d. 12.0.0.1
17. Which class of IP address provides a maximum of only 254 host addresses per network ID?
 - a. Class A
 - b. Class B
 - c. Class C
 - d. Class D
18. Identify the switching method in which the message is divided into small packets
 - a. Computer scan
 - b. Digital scan
 - c. Biotech
 - d. Firewall
19. Network layer firewall works as a _____
 - a. Packet filter
 - b. Frame filter
 - c. Content filter
 - d. Virus filter
20. A firewall is installed at the point where the secure internal network and untrusted external network meet which is also known as _____
 - a. Secure point
 - b. Meeting point
 - c. Firewall point
 - d. Chock point

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(PART-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. a. What is a computer network? 2+8=10
b. Explain different types of computer networking in detail
2. a. Explain the concept of data terminal equipment & data communication equipments? 8+2=10
b. State few lines on Bandwidth & Baseband
3. a. Illustrate the concept of Network Topology and its type in detail 6+4=10
b. Define the following terms:
 - i. Hub
 - ii. Switches.
4. a. What is the concept of client server architecture? Explain different types of server. 5+5=10
b. Explain switching techniques and its types.
5. a. what is OSI model? 2+8=10
b. Explain 7 layer model of OSI with suitable diagram
6. a. What do you mean by IEEE standard? 2+8=10
b. Demonstrate IEEE 802 project standards in detail
7. a. What is the difference between IPv4 & IPv6? 4+6=10
b. Explain TCP/IP reference Model with suitable Architecture diagram.
8. a. State few lines on URL. 3+7=10
b. What is network security? Explain the concept of Firewall Technology.

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