REV-01
MCA/35/40

2025/05

SET A

MASTER OF COMPUTER APPLICATION
SECOND SEMESTER
COMPUTER NETWORKS
MCA-202

[USE OMR FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

Time: 30 min. **Marks: 20**

(Objective) 1X20=20

Choose the correct answer from the following:

1. Which of the following are the different types of networks around you?
   a. LAN b. WAN
   c. MAN d. All of the above

2. The data unit in the TCP/IP layer is called a
   a. Message b. Segment
   c. Datagram d. Frame

3. Which of the following is an example of a bounded medium?
   a. coaxial cable b. wave guide
   c. fiber optic cable d. all of these

4. Interconnection which is present two or more computers so that they can comunicate with each other is called
   a. network b. sharing
   c. link d. LAN

5. ..... addresses are reserved for multi-casting
   a. Class B b. Class C
   c. Class D d. Class E

6. The physical connection between an end point and a switch or between two switches is
   a. Transmission path b. Virtual path
   c. FTP d. Both a and b above

7. Error detection at the data link layer is achieved by
   a. Bit Stuffing b. Cyclic redundancy nodes
   c. Hamming codes d. Equalization

8. The physical layer is concerned with the movement of ----------over the physical medium
   a. programs b. dialogs
   c. Protocols d. bits

9. The data link layer takes the packets from ---------- and encapsulates them into frames for transmission
   a. physical layer
   b. transport layer
   c. network layer
   d. application layer

10. How many numbers of host/machine can be attached to a network using a class B address?
   a. 65536
   b. 128
   c. 256
   d. 16777216

11. Which one of the following functionalities isn't provided by TCP?
   a. Flow control
   b. Addressing
   c. Retransmission of packets as required
   d. All of these

12. Which routing protocol below is used by exterior routers between the autonomous systems?
   a. RIP
   b. IGRP
   c. OSPF
   d. BGP

13. Making decisions about the paths used for datagrams to reach destination is called .....
   a. Routing
   b. forwarding
   c. translating
   d. Networking

14. IPV4 Address is
   a. 8 bits
   b. 16 bits
   c. 32 bits
   d. 64 bits

15. End to end connectivity is provided from host- to-host in
   a. Network Layer
   b. Session Layer
   c. Transport Layer
   d. Data link layer

16. Which port is reserved for the use of the SMTP protocol?
   a. 21
   b. 23
   c. 25
   d. 53

17. Which is not an objective of network security?
   a. identification
   b. authentication
   c. access control
   d. lock

18. The full form of Malware is .....
   a. Malfunctioned Software
   b. Multipurpose Software
   c. Malicious Software
   d. Malfunctioning of Security

19. An asymmetric-key cipher uses
   a. 1 key
   b. 2 key
   c. 3 key
   d. 4 key

20. A process of making the encrypted text readable again is

a. decryption
b. encryption
c. network security
d. information hiding

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(Descriptive)

Time : 2 hrs. 30 min. **Marks : 50**

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

1. What do you mean by network? How many types of networks are there? Explain all of them in details along with an example and diagram. 10

2. What do you mean by transmission media? How many types of transmission media are there? Explain all of them in details along with an example and diagram. 10

3. What do you mean by data link layer? Explain the framing concept that occurs in the data link layer of the OSI model along with an example and diagram. 10

4. What do you mean by error detection and error correction? Explain the ways of examining error detection codes over error correcting codes. 10

5. What do you mean by routing? How many types of routing are there? Explain all of them in details along with an example and diagram. 10

6. What do you mean by transport layer? Explain the services provided by the transport layer in details along with an example. 10

7. Explain the threats of network security in details along with an example. 10

8. What do you mean by cryptography? How many types of cryptographic techniques are there? Explain all of them in details along with an example. 5+5=10

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