

**MASTER OF COMPUTER APPLICATION
SECOND SEMESTER (REPEAT)
DATA COMMUNICATION
MCA-202**

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

1. Which of the following is an example of Bluetooth?
 - a. Wide area network
 - b. Virtual private network
 - c. Personal area network
 - d. local area network
2. What is the full form of OSI?
 - a. Optical service implementation
 - b. Open system Internetworking
 - c. Operating system interface
 - d. None of the above
3. When a collection of various computers appears as a single coherent system to its clients, what is this called?
 - a. Distributed system
 - b. Mail system
 - c. Networking system
 - d. All of the above
4. What are nodes in a computer network?
 - a. The computer that routes the data
 - b. The computer that terminates the data
 - c. The computer that originates the data
 - d. All of the above
5. Which one of the following is not a function of network layer?
 - a. Congestion control
 - b. Error control
 - c. Routing
 - d. Inter-networking
6. Which of the following devices forwards packets between networks by processing the routing information included in the packet?
 - a. Firewall
 - b. Bridge
 - c. Router
 - d. Hub
7. Switch is a useful device used inlayer of OSI reference model.
 - a. Physical
 - b. Datalink
 - c. Network
 - d. Application
8. Which type of network shares the communication channel among all the machines?
 - a. Multicast network
 - b. Anycast network
 - c. Unicast network
 - d. Broadcast network
9. DNS protocol is used inlayer.
 - a. Network
 - b. Application
 - c. Presentation
 - d. Session
10. FTP works on TCP port no.....
 - a. 80
 - b. 25
 - c. 69
 - d. 21

11. Which layer is responsible for process-to-process delivery in a general network model?
 - a. Session
 - b. Presentation
 - c. Transport
 - d. Network
12. Which network topology requires a central controller?
 - a. Star
 - b. Bus
 - c. Mesh
 - d. Ring
13. What type of transmission is involved in communication between a computer and a keyboard?
 - a. Half duplex
 - b. Full duplex
 - c. Simplex
 - d. Any of the above
14. The calculation of sending frame of size 'm' for sliding window in Go-Back-N ARQ is:
 - a. 2^m-1
 - b. 2^m
 - c. 2^m
 - d. None of the above
15. Which of the following protocol allows to connect and login to a remote computer?
 - a. SMTP
 - b. TELNET
 - c. POP
 - d. HTTP
16. The concept of Stub is used in which protocol?
 - a. TFTP
 - b. FTP
 - c. DNS
 - d. RPC
17. In IP Addressing, Class C containsoctet/s of network id andoctet/s of host id.
 - a. 1,3
 - b. 2,2
 - c. 3,1
 - d. 4,0
18. "There is a foil or braid shield inside the jacket covering all wires"- is the property of:
 - a. Co-Axial cable
 - b. STP
 - c. UTP
 - d. Fiber Optics
19. IPV6 is abit address.
 - a. 32
 - b. 64
 - c. 128
 - d. 256
20. Which is best technique to use, to find the shortest path if the routes are having both costs and directions?
 - a. Dijkstraalgorithm
 - b. Bellman Ford algorithm
 - c. Flooding
 - d. Floyd-Warshall algorithm

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

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| 1. What is the importance of using Communication Media in Computer Network? Describe all the Wired types of media used for communication. | 10 |
| 2. a) How IP Addressing can connect devices in a network?
b) Explain the classful addressing along with its types. | 3+7=10 |
| 3. a) What are the error control techniques used in Data Link Layer?
b) Describe each type of technique with preferred diagram. | 4+6=10 |
| 4. Write short notes on:
a) Data Encryption
b) HTTP | 5×2=10 |
| 5. a) What is sliding window protocol?
b) Explain how the send and receive sliding window works if Selective Repeat Request if m=4? | 2+8=10 |
| 6. a) How Routing plays an important role in Network Layer?
b) Explain various types of routing techniques used in this layer along with suitable diagrams. | 2+8=10 |
| 7. a) What are the significance of using Switches?
b) Explain the categories of switches used in networking purpose. | 4+6=10 |
| 8. Which Data Compression method is used for calling the remote procedure? Explain its procedure along with diagrammatic representation. | 2+8=10 |

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