MCA-I SEM-II

**Essentials of Networking IT-23**

**UNIT 02**

**Principal of Layering Concepts**

Part A] One mark MCQ

**Note:- Each Question carry one mark**

**1.** TCP/IP model does not have \_\_\_\_\_\_ layer but OSI model have this layer.  
**a) session layer**  
b) transport layer  
c) application layer  
d) network layer

**2** . Which layer is used to link the network support layers and user support layers?  
a) session layer  
b) data link layer  
c) **transport layer**  
d) network layer

3. Transmission data rate is decided by \_\_\_\_\_\_\_\_\_\_\_\_  
a) network layer  
**b) physical layer**  
c) data link layer  
d) transport layer

**4** . Which address is used to identify a process on a host by the transport layer?  
a) physical address  
b) logical address  
c) **port address**  
d) specific address

5. Which of the following methods is/are used in Message switching?

a.Store and Forward  
b.Switch to Switch  
c.**Both a and b**  
d.None of the above

6. Which of the following methods is/are used in Packet switching?

a.Datagram Packet Switching  
b.Virtual-circuit Packet Switching  
**c.Both a and b**  
d.None of the above

7. Bridge works in which layer of the OSI model?

A. Appliation layer

B. Transport layer

C. Network layer

**D. Datalink layer**

8. Which of the following layer of OSI model also called end-to-end layer?

A. Presentation layer

B. Network layer

C. Session layer

**D. Transport layer**

9. Repeater operates in which layer of the OSI model?

**A. Physical layer**

B. Data link layer

C. Network layer

D. Transport layer

10. Layer-2 Switch is also called

A. Multiport Hub

B. Multiport Switch

**C. Multiport Bridge**

D. Multiport NIC

Part B] Two mark MCQ

Note:- Each Question carry Two marks

1. Which connection does the OSI model support in networking?

a.Connection-oriented  
b.Connectionless  
**c.Both a and b**  
d.None of the above

2.` The protocol data unit(PDU) for the application layer in the Internet stack is  
(A) Segment  
(B) Datagram  
(C) **Message**  
(D) Frame

3. What do you mean by broadcasting in Networking?

**A. It means addressing a packet to all machine**

B. It means addressing a packet to some machine

C. It means addressing a packet to a particular machine

D. It means addressing a packet to except a particular machine

4. Which layer is responsible for process to process delivery in a general network model?  
a) network layer **b) transport layer**  
c) session layer  
d) data link layer

5. Which of the following policies is/are related to Network layer?

a.Window policy  
b.Traffic shapingc.Traffic policing **d.Packet services**

6. What is the difference between Virtual Circuit and Datagram?

a.The quality of service is easy in Virtual Circuit while it is difficult in Datagram.  
b.**In the connection oriented service, a connection is called as Virtual Circuit while in the connectionless service, the independent packets are called as Datagrams.**  
c.The services are independent in Virtual Circuit but that won't be so in Datagrams.  
d.Both a and b

7. Which address is used on the internet for employing the TCP/IP protocols?  
a) physical address and logical address  
b) port address  
c) specific address  
d) **all of the mentioned**

8.  Which layer provides the services to user?  
**a) application layer**  
b) session layer  
c) presentation layer  
d) physical layer

9. what is/are the advantages of the TCP/IP?

a.TCP/IP provides reliable communication across the internet.  
b.Information on the internet is carried in packets.  
c.TCP/IP is a robust and scalable network.  
d.**All of the above.**

**10.** Which layers of the OSI model are host-to-host layers?

A. Transport, Session, Persentation, Application

B. Network, Transport, Session, Presentation

C. Datalink, Network, Transport, Session

**D. Physical, Datalink, Network, Transport**

Part C] Short Question

Note:- Each Question carry one mark

1. What are the responsiblity of data link layer.

2. What is the difference between TCP and UDP?

3. In which layer term “Frames” is used ?

4. What is CRC? Which layer CRC works ?

5. Which one is reliable – TCP or UDP ?

6. Which layer combines bits into bytes and bytes into frames, uses MAC addressing, and provide error detection ?

7. What is the difference between flow control and error control?

8. What is data encapsulation.

9. Which Layer Provides Logical Addressing That Routers Will Use For Path Determination ?

10.  Mac Address Works On Which Layer ? What Are The Differences Of Mac SublayWhat are the responsibilities of Network Layer? er And Llc Sublayer?

Part D] Fill in the Blank

Note:- Each Question carry one mark

1. At which layer of the OSI model is a path decision made based upon an IP address

2. ---------------Which of the following takes place at the presentation layer

3. Delimiting and synchronization of data exchange is provided by \_\_\_\_\_\_\_\_\_\_

4.  In the OSI model, as a data packet moves from the lower to the upper layers, headers are -------------------

5. ---------------- layer translates nad encrypts data.

6. Layer 3 lie between data link and ---------------layers.

7. ---------------------layer is responsible for Routing.

8. Transmission data rate is decided by \_\_\_\_\_\_\_\_\_\_\_\_

9. -------- address is used to identify a process on a host by the transport layer

10. Which sublayer of the data link layer performs data link functions that depend upon the type of medium?