MCQ Questions - this is MCQ

Networks (Lovely Professional University)

MCQ Questions

1. How many layers are present in the Internet protocol stack (TCP/IP model)?
a) 5
b) 7
c) 6
d) 10
View Answer
Answer: a
Explanation: There are five layers in the Internet Protocol stack. The five layers in Internet Protocol stack is Application, Transport, Network, Data link and Physical layer. The internet protocol stack model is also called the TCP/IP model and it's used in modern Internet Communication.

2. The number of layers in ISO OSI reference model is _____
a) 5
b) 7
c) 6
d) 10
View Answer
Answer: b
Explanation: The seven layers in ISO OSI reference model is Application, Presentation, Session, Transport, Network, Data link and Physical layer. OSI stands for Open System Interconnect and it is a generalized model.

3. Which of the following layers is an addition to OSI model when compared with TCP IP model?
a) Application layer
b) Presentation layer
c) Session layer
d) Session and Presentation layer
View Answer
Answer: d
Explanation: The only difference between OSI model and TCP/IP model is that the functions of Presentation and Session layer in the OSI model are handled by the transport layer itself in TCP/IP. OSI is a generalized model and TCP/IP is an application specific model.

4. Application layer is implemented in _____
a) End system
b) NIC
c) Ethernet
d) Packet transport
View Answer
Answer: a
Explanation: Not only application layer, but presentation layer, session layer and transport layer are also implemented in the end system. The layers below are implemented outside the end system, for example, the network layer is implemented on the routers and the physical layer is implemented for the medium.

5. Transport layer is implemented in _____
a) End system
b) NIC
c) Ethernet
d) Signal transmission
View Answer
Answer: a
Explanation: Application, Presentation, Session and Transport layer are implemented in the end system. The transport layer handles the process to process delivery of the packet through ports.

6. The functionalities of the presentation layer include _____
a) Data compression
b) Data encryption
c) Data description
d) All of the mentioned
View Answer
Answer: d
Explanation: Some functions of the presentation layer include character-code translation, data conversion, data encryption and decryption, and data translation. It connects the application layer with the layers below converting the human readable text and media to machine readable format and vice-versa.

7. Delimiting and synchronization of data exchange is provided by _____
a) Application layer
b) Session layer
c) Transport layer
d) Link layer
View Answer
Answer: b
Explanation: The session layer provides the mechanism for opening, closing and managing a session between end-user application processes. The session layer 5 is responsible for establishing managing synchronizing and terminating sessions. In TCP/IP protocol stack, the functions of the session layer are handled by the transport layer itself and thus the session layer is missing from the TCP/IP model.

8. In OSI model, when data is sent from device A to device B, the 5th layer to receive data at B is _____
a) Application layer
b) Transport layer
c) Link layer
d) Session layer
View Answer
Answer: d
Explanation: In OSI reference model, the fifth layer is Session layer. Session layer provides the mechanism for opening, closing and managing a session between end-user application processes. In TCP/IP protocol stack, the functions of the session layer are handled by the transport layer itself and thus the session layer is missing from the TCP/IP model.

9. In TCP IP Model, when data is sent from device A to device B, the 5th layer to receive data at B is _____
a) Application layer

b) Transport layer
c) Link layer
d) Session layer
View Answer
Answer: a
Explanation: In TCP/IP model, the fifth layer is application layer. When data is sent from device A to device B, the 5th layer to receive data at B is application layer. Application layer provides the interface between applications and the network. The user interacts with only this layer.

10. In the OSI model, as a data packet moves from the lower to the upper layers, headers are _____
a) Added
b) Removed
c) Rearranged
d) Randomized
View Answer
Answer: b
Explanation: In OSI reference model, when data packet moves from lower layers to higher layer, headers get removed. Whereas when the data packet moves from higher layer to lower layers, headers are added. These headers contain the essential control information for the protocols used on the specific layer.

11. Which of the following statements can be associated with OSI model?
a) A structured way to discuss and easier update system components
b) One layer may duplicate lower layer functionality
c) Functionality at one layer no way requires information from another layer
d) It is an application specific network model
View Answer
Answer: c
Explanation: One layer may use the information from another layer, for example timestamp value. The information is contained in the header inserted by the previous layer. The headers are added as the packet moves from higher layers to the lower layers.