

Networking MCQ Questions

1. Which of these is a standard interface for serial data transmission?

- a. ASCII
- b. RS232
- c. 2
- d. Centronics

2. Which type of topology is best suited for large businesses which must carefully control and coordinate the operation of distributed branch outlets?

- a. Ring
- b. Local area
- c. Hierarchical
- d. Star

3. Which of the following transmission directions listed is not a legitimate channel?

- a. Simplex
- b. Half Duplex
- c. Full Duplex
- d. Double Duplex

4. What kind of transmission medium is most appropriate to carry data in a computer network that is exposed to electrical interferences?

- a. Unshielded twisted pair
- b. Optical fiber
- c. Coaxial cable
- d. Microwave

5. A collection of hyperlinked documents on the internet forms the ?

- a. World Wide Web (WWW)

- b. E-mail system
- c. Mailing list
- d. Hypertext markup language

6. The location of a resource on the internet is given by its?

- a. Protocol
- b. URL
- c. E-mail address
- d. ICQ

7. The term HTTP stands for?

- a. Hyper terminal tracing program
- b. Hypertext tracing protocol
- c. Hypertext transfer protocol
- d. Hypertext transfer program

8. A proxy server is used as the computer?

- a. with external access
- b. acting as a backup
- c. performing file handling
- d. accessing user permissions

9. Which software prevents the external access to a system?

- a. Firewall
- b. Gateway
- c. Router
- d. Virus checker

10. Which of the following best describes uploading information?

- a. Sorting data on a disk drive
- b. Sending information to a host computer
- c. Receiving information from a host computer

- d. Sorting data on a hard drive

11. Which one of the following is the most common internet protocol?

- a. HTML
- b. NetBEUI
- c. TCP/IP
- d. IPX/SPX

12. Software programs that allow you to legally copy files and give them away at no cost are called which of the following?

- a. Probe ware
- b. Timeshare
- c. Shareware
- d. Public domain

13. The term FTP stands for?

- a. File transfer program
- b. File transmission protocol
- c. File transfer protocol
- d. File transfer protection

14. The IP network 192.168.50.0 is to be divided into 10 equal sized subnets. Which of the following subnet masks can be used for the above requirement?

- a. 255.243.240
- b. 255.255.0.0
- c. 255.255.255.0
- d. 255.255.255

15. When the mail server sends mail to other mail servers it becomes __ ?

- a. SMTP client
- b. SMTP server
- c. Peer

d. Master

16. application layer (HTTP, FTP, SMTP, POP3, etc.), transport layer (TCP, UDP, SCTP, DCCP, NORM), internetworking layer (IPv4, Ipv6), link layer (Ethernet, Wi-Fi, 3G, 4G, LTE, etc.), physical layer (could be combined with Link Layer as Host to Network Layer or NIC layer); transport layer security sublayer added later

a. TCP/IP Reference Model

b. Ftp

c. Tcp/ip Protocol

d. Udp

17. hosts (sometimes divided into clients and servers); devices that are connected to each other by a network of communication links and packet switches; at the “edge of the network”

a. end systems

b. packet switch

c. network layer

d. communication links

18. What IP address class allocates 8 bits for the host identification part?

a. Class A

b. Class B

c. **Class C**

d. Class D

19. The correct order of corresponding OSI layers for having functionalities of routing and reconciling machine representation differences with shared access resolution and ASCII test protocol is?

a. Network, Physical, Transport, Data link

b. Network, Physical, Data link, Application

c. Network, Presentation, Data link, Application

d. Network, Presentation, Physical, Transport

20. a computer network that interconnects hundreds of millions of computing devices throughout the world; also, an infrastructure that provides services to applications including email, web surfing, social networks, etc.

- a. Tcp
- b. Protocol
- c. Server
- d. Internet

21. Which is not a application layer protocol?

- a. HTTP
- b. SMTP
- c. FTP
- d. TCP

22. The packet of information at the application layer is called _____

- a. Packet
- b. Message
- c. Segment
- d. Frame

23. Which one of the following is an architecture paradigms?

- a. Peer to peer
- b. Client-server
- c. HTTP
- d. Both Peer-to-Peer & Client-Server

24. Application developer has permission to decide the following on transport layer side

- a. Transport layer protocol
- b. Maximum buffer size
- c. Both Transport layer protocol and Maximum buffer size
- d. None of the mentioned

25. Application layer offers _____ service.

- a. End to end
- b. Process to process
- c. Both End to end and Process to process
- d. None of the mentioned

26. E-mail is _____

- a. Loss-tolerant application
- b. Bandwidth-sensitive application
- c. Elastic application
- d. None of the mentioned

27. Which of the following is an application layer service?

- a. Network virtual terminal
- b. File transfer, access, and management
- c. Mail service
- d. All of the mentioned

28. To deliver a message to the correct application program running on a host, the _____ address must be consulted.

- a. IP
- b. MAC
- c. Port
- d. None of the mentioned

29. Transport services available to applications in one or another form _____

- a. Reliable data transfer
- b. Timing
- c. Security
- d. All of the mentioned

30. Electronic mail uses which Application layer protocol?

- a. **SMTP**
- b. HTTP
- c. FTP
- d. SIP

31 . A(n) _____ is the way in which the functions of the application layer software are spread among the clients and servers in the network

- a. anonymous FTP
- b. data access logic
- c. fat client
- d. **application architecture.**

32) A _____ is a very large general-purpose computer that is capable of performing very many functions as if these are done simultaneously, and storing extremely large amounts of data

- a. workstation
- b. transaction terminal
- c. cluster
- d. **mainframe**

33. One underlying problem with a host-based network is that :

- a. there are economies of scale because all computer resources are centralized
- b. **the server can get overloaded since it must process all messages**
- c. the architecture is relatively simple and works well
- d. the server is the one point of control which simplifies security

34 time for a small packet to travel from client to server and back

- a. ICT
- b. RTT
- c. SST
- d. STP

35. Which URL method of HTTP performs similar function as that of PUT method only with an exception of request comprising a list of differences that exhibit the necessity to get implemented in the existing file?

- a. POST
- b. GET
- c. PATCH
- d. OPTION

36. FTP is built on ____ architecture.

- a. Client-server
- b. P2P
- c. Data centric
- d. Service oriented

37. FTP uses _____ parallel TCP connections to transfer a file.

- a. 1
- b. 2
- c. 3
- d. 4

38. If 5 files are transferred from server A to client B in the same session. The number of TCP connections between A and B is _____

- a. 5

- b. 10
- a. 2
- c. 6

39. The data transfer mode of FTP, in which all the fragmenting has to be done by TCP is _____

- a. Stream mode
- b. Block mode
- c. Compressed mode
- d. Message mode

40. The password is sent to the server using _____ command.

- a. PASSWD
- b. PASS
- c. PASSWORD
- d. PWORD

41. The client in socket programming must know which information?

- a. IP address of Server
- b. Port number
- c. Both IP address of Server & Port number
- d. Only its own IP address

42. Which classes are used for connection-less socket programming?

- a. Datagram Socket
- b. Datagram Packet
- c. Both Datagram Socket & Datagram Packet
- d. Server Socket

43. The network layer is concerned with _____ of data.

- a. Bits
- b. Frames
- c. packets
- d. bytes

44. Which one of the following is not a function of network layer?

- a. Routing
- b. inter-networking
- c. congestion control
- d. error control

45. A 4 byte IP address consists of _____

- a. only network address
- b. only host address
- c. network address & host address
- d. network address & MAC address

46. In virtual circuit network each packet contains _____

- a. full source and destination address
- b. a short VC number
- c. only source address
- d. only destination address

47. Which of the following routing algorithms can be used for network layer design?

- a. shortest path algorithm
- b. distance vector routing
- c. link state routing
- d. all of the mentioned

48. Which of the following is not correct in relation to multi-destination routing?

- a) is same as broadcast routing
- b) contains the list of all destinations
- c) data is not sent by packets
- d) there are multiple receivers

49. A subset of a network that includes all the routers but contains no loops is called _____

- a) spanning tree
- b) spider structure
- c) spider tree
- d) special tree

50. The network layer protocol for internet is _____

- a) ethernet
- b) internet protocol
- c) hypertext transfer protocol
- d) file transfer protocol

51. ICMP is primarily used for _____

- a) error and diagnostic functions
- b) addressing
- c) forwarding

d) routing

52. Switching via memory is limited by

- a. segment, sending, receiving
- b. due to congestion, lack of buffers
- c. switching speed limited by bus bandwidth

d. memory bandwidth (2 bus crossings per datagram)

53. Switching via interconnection network

- a. memory bandwidth (2 bus crossings per datagram)
- b. A distinct (typically remote) controller interacts with local control agents (CAs)
- c. switching under direct control of CPU, packet copied to system's memory
- d. banyan networks, crossbar, other interconnection nets initially developed to connect processors in multiprocessor**

54. Transport layer aggregates data from different applications into a single stream before passing it to _____

a) network layer

- b) data link layer
- c) application layer
- d) physical layer

55. Which of the following are transport layer protocols used in networking?

- a) TCP and FTP

Network

b) UDP and HTTP

c) TCP and UDP

d) HTTP and FTP

56. User datagram protocol is called connectionless because _____

a) all UDP packets are treated independently by transport layer

b) it sends data as a stream of related packets

c) it is received in the same order as sent order

d) it sends data very quickly

57. Transmission control protocol _____

a) is a connection-oriented protocol

b) uses a three way handshake to establish a connection

c) receives data from application as a single stream

d) all of the mentioned

58. An endpoint of an inter-process communication flow across a computer network is called _____

a) socket

b) pipe

c) port

d) machine

59. Socket-style API for windows is called _____

Network

a) wsock

b) winsock

c) wins

d) sockwi

60. Which one of the following is a version of UDP with congestion control?

a) datagram congestion control protocol

b) stream control transmission protocol

c) structured stream transport

d) user congestion control protocol

61. A ____ is a TCP name for a transport service access point.

a) port

b) pipe

c) node

d) protocol

62. Transport layer protocols deals with _____

a) application to application communication

b) process to process communication

c) node to node communication

d) man to man communication

63. Which of the following is a transport layer protocol?

a) stream control transmission protocol

b) internet control message protocol

c) neighbor discovery protocol

d) dynamic host configuration protocol

64. TCP and UDP are called _____

a. Application protocols

b. Session protocols

c. Transport protocols

d. Network protocols

65. Buffer overrun can be reduced by using what ?

a. Traffic control

b. Flow control

c. Byte orientation

d. Data integrity

67. FCP stands for _____

a. Fiber Channel Protocol.

b. Field Channel Protocol.

c. Fast Channel Protocol.

d. Fiber Carrying Protocol

68 . Transport layer is responsible for process - to -process delivery of the _____

- a. Address of Message
- b. Message
- c. Few Packets of Message
- d. Partial Message

69. Frames that are used for initial communication between stations and access points are called _____

a. Management Frames

- b. Beacon Frame
- c. Control frames
- d. Data frames

70. At transport layer , TCP/IP defines

- a. Stream Control Transmission Protocol
- b. User Datagram Protocol
- c. Transmission Control Protocol
- d. All of the above**

71. Transport layer receives data in the form of _____

a. Byte Streams

- b. Bits Stream
- c. Packets
- d. Both packets and Byte Stream

72. Which services are provided by transport layer ?

a. Error control

- b. Connection service

c. Connection less service

d. Congestion control

73 . Transport layer protocols deals with _____

a. Process to process communication

b. Application to application communication

c. Node to node communication

d. None of the mentioned

74. Which one of the following is a version of UDP with congestion control ?

a. stream control transmission protocol

b. structured stream transport

c. datagram congestion control protocol

d. none of the mentioned

75. An endpoint of an inter-process communication flow across a computer network is called _____

a. Socket

b. pipe

c. port

d. none of the mentioned

76. The size of IP address in IPv6 is

a) 4bytes

b) 128bits

c) 8bytes

d) 100bits

77. The header length of an IPv6 datagram is ____.

a) 10bytes

b) 25bytes

c) 30bytes

d) 40bytes

78. In the IPv6 header, the traffic class field is similar to which field in the IPv4 header?

a) Fragmentation field

b) Fast-switching

c) ToS field

d) Option field

79. IPv6 does not use ____ type of address

a) Broadcast

b) Multicast

c) Anycast

d) None of the mentioned

80. These are the features present in IPv4 but not in IPv6.

a) Fragmentation

b) Header checksum

c) Options

d) All of the mentioned

81. The ____ field determines the lifetime of IPv6 datagram

a) Hop limit

b) TTL

c) Next header

d) None of the mentioned

82. The DHCP server

a) maintains a database of available IP addresses

b) maintains the information about client configuration parameters

c) grants a IP address when receives a request from a client

d) all of the mentioned

83. The data link layer takes the packets from _____ and encapsulates them into frames for transmission.

a) network layer

b) physical layer

c) transport layer

d) application layer

84. Which of the following tasks is not done by data link layer?

- a) framing
- b) error control
- c) flow control

d) channel coding

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

- a) logical link control sublayer
- b) media access control sublayer**
- c) network interface control sublayer
- d) error control sublayer

86 . Header of a frame generally contains _____

- a) synchronization bytes
- b) addresses
- c) frame identifier

d) all of the mentioned

87. Automatic repeat request error management mechanism is provided by _____

- a) logical link control sublayer**
- b) media access control sublayer

c) network interface control sublayer

d) application access control sublayer

88. When 2 or more bits in a data unit has been changed during the transmission, the error is called _____

a) random error

b) burst error

c) inverted error

d) double error

89. CRC stands for _____

a) cyclic redundancy check

b) code repeat check

c) code redundancy check

d) cyclic repeat check

90. Which of the following is a data link protocol?

a) ethernet

b) point to point protocol

c) hdlc

d) all of the mentioned

91. Which of the following is the multiple access protocol for channel access control?

a) CSMA/CD

b) CSMA/CA

c) Both CSMA/CD & CSMA/CA

d) HDLC

92. The technique of temporarily delaying outgoing acknowledgements so that they can be hooked onto the next outgoing data frame is called _____

a) piggybacking

b) cyclic redundancy check

c) fletcher's checksum

d) parity check

93. What are the two different types of links?

a. point-to-point, broadcast

b. digit, analog

c. more, longer

d. digit, algorithms

94. How do you determine the interface's MAC address knowing its IP address?

a. Mac address

b. Cam table

c. Routing table

d. ARP table

95. When the MAC address is not known the LAN sends a _____ and all nodes on the LAN receive it when one has the IP address the sender caches it with the MAC address until it times out

- a. arp table
- b. ip mac
- c. mac address

d. broadcast ARP query

96. What is added to a VLAN frame ?

a. protocol identifier tag control

- b. media access control
- c. network interface card
- d. virtual local area networks

97. Routers are _____ layer devices while switches are _____ layer devices

a. link , network

b. network , link

- c. network , network
- d. link , link

98. VLANs all computers are connected to a single _____. Ports are _____ into virtual LANs

a. switch , grouped

b. router , grouped

c. switch, single

d. router , single

99. A MAC address is _____

a. the same as an IP address

b. a data link layer addresses

c. an address that goes with cheese

d. something that is configured by the network administrator

100. What is a primary function of the trailer information added by the data link layer encapsulation?

a. Supports error detection

b. Ensures ordered arrival of data

c. Identifies the devices on the local network

d. Provides delivery to correct destination

Resources

101. A dedicated connection which is always available between the two end systems and the switch can only make it active or inactive Called.....

- a. Packet Switching
- b. Virtual Circuit switching
- c. **Circuit Switching**
- d. Cell Switching

102. What is the type of switching that the public switched telephone network (PSTN) uses?

- a. Packet Switching
- b. Virtual Circuit switching
- c. **Circuit Switching**
- d. Cell Switching

103. What is the type of switching that the Data network and internet uses

- a. **Packet Switching**
- b. Virtual Circuit switching
- c. Circuit Switching
- d. Cell Switching

104. What is the name of the connection between two PSTN Central Office (CO)?

- a. Local Loop

b. Trunk

c. Tandem Connection

d. Transient Connection

105. Local Loop Connection to Central Office (CO) is

a. Analog

b. Digital

c. Circuit

d. Switched

106. Trunk Connection between Central Office (Co) is

a. Analog

b. Digital

c. Circuit

d. Switched

107. In a computer network, the communication between the two ends is done in blocks of data called

a. Packet Switching

b. Virtual Circuit switching

c. Circuit Switching

d. Cell Switching

108. All the following are considered End Devices except.....

a. Switches

b. Network printer

c. Security camera

d. VoIP phones

109. A network serving a home, building, campus is considered a

a. LAN

b. MAN

c. WAN

d. PAN

110 . What process involves placing one PDU inside of another PDU?

a. encapsulation

b. encoding

c. segmentation

d. flow control

111. What layer is responsible for routing messages through an internetwork in the

TCP/IP model?

a. internet

b. transport

c. network access

d. session

112. Which PDU format is used when bits are received from the network medium by the NIC of a host?

a. file

b. frame

c. packet

d. segment

113. Which method allows a computer to react accordingly when it requests data from a server and the server takes too long to respond?

- a. Encapsulation
- b. flow control
- c. access method
- d. response timeout

114. A web client is receiving a response for a web page from a web server. From the perspective of the client, what is the correct order of the protocol stack that is used to decode the received transmission?

- a. Ethernet, IP, TCP, HTTP
- b. HTTP, TCP, IP, Ethernet
- c. Ethernet, TCP, IP, HTTP
- d. HTTP, Ethernet, IP, TCP

115. At which layer of the OSI model would a logical address be added during encapsulation?

- a. physical layer
- b. data link layer
- c. network layer
- d. transport layer

116. What is a characteristic of multicast messages?

- a. They are sent to a select group of hosts.
- b. They are sent to all hosts on a network.
- c. They must be acknowledged.
- d. They are sent to a single destination.

117. Which statement is correct about network protocols?

- a. Network protocols define the type of hardware that is used and how it is mounted in racks.
- b. They define how messages are exchanged between the source and the destination.
- c. They all function in the network access layer of TCP/IP.
- d. They are only required for exchange of messages between devices on remote networks.

118. What is an advantage of network devices using open standard protocols?

- a. Network communications is confined to data transfers between devices from the same vendor.
- b. A client host and a server running different operating systems can successfully exchange data.
- c. Internet access can be controlled by a single ISP in each market.
- d. Competition and innovation are limited to specific types of products

119. Which device performs the function of determining the path that messages should take through internetworks?

- a. a router
- b. a firewall
- c. a web server
- d. a DSL modems

120. What term describes a network where one computer can be both client and server?

- a. peer-to-peer
- b. cloud
- c. BYOD
- d. quality of service

121. What term describes a computing model where server software runs on dedicated computers?

- a. **client/server**
- b. internet
- c. intranet
- d. extranet

122. At which OSI layer is a source IP address added to a PDU during the encapsulation process?

- a. **network layer**
- b. data link layer
- c. transport layer
- d. application layer

123. At which OSI layer is a destination port number added to a PDU during the encapsulation process?

- a. **transport layer**
- b. data link layer
- c. network layer
- d. application layer

124. At which OSI layer is data added to a PDU during the encapsulation process?

- a. **application layer**
- b. data link layer
- c. network layer
- d. transport layer

125. What is the purpose of the OSI physical layer?

- a. controlling access to media
- b. **transmitting bits across the local media**
- c. performing error detection on received frames

- d. exchanging frames between nodes over physical network media

126. What is contained in the trailer of a data-link frame?

- a. logical address
- b. physical address
- c. data
- d. error detection

127. Which action is performed by a client when establishing communication with a server via the use of UDP at the transport layer?

- a. The client sets the window size for the session.
- b. The client sends an ISN to the server to start the 3-way handshake.
- c. The client randomly selects a source port number.
- d. The client sends a synchronization segment to begin the session.

128. Which network service automatically assigns IP addresses to devices on the network?

- a. DHCP
- b. Telnet
- c. DNS
- d. traceroute

129. What is the complete range of TCP and UDP well-known ports?

- a. 0 to 255
- b. 0 to 1023
- c. 256 – 1023
- d. 1024 – 49151

130. How many layers does OSI Reference Model has?

- a. 4
- b. 5

- c. 6
- d. 7

131. DNS is the abbreviation of

- a. Dynamic Name System
- b. Dynamic Network System
- c. Domain Name System
- d. Domain Network Service

132. Router operates in which layer of OSI Reference Model?

- a. Layer 1 (Physical Layer)
- b. Layer 3 (Network Layer)
- c. Layer 4 (Transport Layer)
- d. Layer 7 (Application Layer)

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

- a. Application layer
- b. Transport layer
- c. Network layer
- d. Datalink layer

134. _____ provides a connection-oriented reliable service for sending messages.

- a. TCP
- b. IP
- c. UDP
- d. All of the above

135. How many bits are there in the Ethernet address?

- a. 64
- b. 48
- c. 16
- d. 32

136. 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

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

- a. Physical layer
- b. Data link layer
- c. Network layer
- d. Transport layer

138. What is the size of MAC Address?

- a. 16-bits
- b. 32-bits
- c. 48-bits
- d. 64-bits

139. MAC Address is the example of

- a. Transport Layer
- b. Data Link Layer
- c. Application Layer
- d. Physical Layer

140. _____ Is The lowest layer of the OSI model is concerned with data communication in the form of electrical

- a. Physical
- b. Data Link
- c. Network
- d. Transport