Multiple choice questions

1. When collection of various computers seems a single coherent system to its client, then it is called
   a) computer network
   b) distributed system
   c) both (a) and (b)
   d) none of the mentioned
   Answer:b

2. Two devices are in network if
   a) a process in one device is able to exchange information with a process in another device
   b) a process is running on both devices
   c) PIDs of the processes running of different devices are same
   d) none of the mentioned
   Answer:a

3. Which one of the following computer network is built on the top of another network?
   a) prior network
   b) chief network
   c) prime network
   d) overlay network
   Answer:d
4. In computer network nodes are
   a) the computer that originates the data
   b) the computer that routes the data
   c) the computer that terminates the data
   d) all of the mentioned
   Answer: d

5. Communication channel is shared by all the machines on the network in
   a) broadcast network
   b) unicast network
   c) multicast network
   d) none of the mentioned
   Answer: a

6. Bluetooth is an example of
   a) personal area network
   b) local area network
   c) virtual private network
   d) none of the mentioned
   Answer: a

7. A _____ is a device that forwards packets between networks by processing the routing information included in the packet.
   a) bridge
   b) firewall
   c) router
   d) all of the mentioned
   Answer: c
8. A list of protocols used by a system, one protocol per layer, is called
   a) protocol architecture
   b) protocol stack
   c) protocol suit
   d) none of the mentioned
   Answer: b

9. Network congestion occurs
   a) in case of traffic overloading
   b) when a system terminates
   c) when connection between two nodes terminates
   d) none of the mentioned
   Answer: a

10. Which one of the following extends a private network across public networks?
    a) local area network
    b) virtual private network
    c) enterprise private network
    d) storage area network
    Answer: b
   Explanation: VPN is created by establishing a virtual point-to-point connection through the use of dedicated connections, virtual tunneling protocols, or traffic encryption.

11. The IETF standards documents are called
    a) RFC
    b) RCF
    c) ID
    d) None of the mentioned
    Answer: a
    Explanation: Internet Engineering Task Force, Request For Comment
12. Which organization has authority over interstate and international commerce in the communications field?
   a) ITU-T
   b) IEEE
   c) FCC
   d) ISOC
   Answer: c
   Explanation: Federal Communications Commission

13. In the layer hierarchy as the data packet moves from the upper to the lower layers, headers are
   a) Added
   b) Removed
   c) Rearranged
   d) Modified
   Answer: a
   Explanation: Every layer adds its own header to the packet from previous layer

14. The structure or format of data is called
   a) Syntax
   b) Semantics
   c) Struct
   d) None of the mentioned
   Answer: a
   Explanation: Semantics defines how a particular pattern to be interpreted, and what action is to be taken based on that interpretation

15. Communication between a computer and a keyboard involves ______________ transmission
a) Automatic
b) Half-duplex
c) Full-duplex
d) Simplex
Answer: d
Explanation: Data flows in single direction.

16. The first Network
a) CNNET
b) NSFNET
c) ASAPNET
d) ARPANET
Answer: d
Explanation: The Advanced Research Projects Agency Network (ARPANET) was an early packet switching network and the first network to implement the protocol suite TCP/IP.

17. The ______ is the physical path over which a message travels
a) Ppath
b) Medium
c) Protocol
d) Route
Answer: b
Explanation: Message travel from sender to receiver via a medium using a protocol.

18. Which of this is not a network edge device?
a) PC
b) Smartphones
c) Servers
d) Switch
Answer: d
Explanation: Network edge devices refer to host systems, which can host applications like web browser

19. A set of rules that governs data communication
   a) Protocols
   b) Standards
   c) RFCs
   d) None of the mentioned
   Answer: a

20. Three or more devices share a link in ________ connection
   a) Unipoint
   b) Multipoint
   c) Point to point
   d) None of the mentioned
   Answer: b
   Explanation: None.

21. The ____ translates internet domain and host names to IP address.
   a) domain name system
   b) routing information protocol
   c) network time protocol
   d) internet relay chat
   Answer: a

**HTTP-FTP**

22. This is one of the architecture paradigm
   a) Peer to peer
   b) Client-server
c) HTTP

d) Both a and b

Answer: d

23. Application developer has permission to decide the following on transport layer side
   a) Transport layer protocol
   b) Maximum buffer size
   c) Both of the mentioned
   d) None of the mentioned

Answer: c

24. Application layer offers ______ service
   a) End to end
   b) Process to process
   c) Both of the mentioned
   d) None of the mentioned

Answer: a

25. E-mail is
   a) Loss-tolerant application
   b) Bandwidth-sensitive application
   c) Elastic application
   d) None of the mentioned

Answer: c

Explanation: Because it can work with available throughput.

26. Pick the odd one out
   a) File transfer
   b) File download
c) E-mail

d) Interactive games

Answer: d

Explanation: Internet telephony is Loss-tolerant other applications are not.

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

Answer: d

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

Answer: c

29. This is a time-sensitive service
   a) File transfer
   b) File download
   c) E-mail
   d) Internet telephony

Answer: d

Explanation: Internet telephony is Loss-tolerant other applications are not.
30. Transport services available to applications in one or another form
   a) Reliable data transfer
   b) Timing
   c) Security
   d) All of the mentioned
   Answer: d

31. Electronic mail uses this Application layer protocol
   a) SMTP
   b) HTTP
   c) FTP
   d) SIP
   Answer: a

32. This is not an application layer protocol
   a) HTTP
   b) SMTP
   c) FTP
   d) TCP
   Answer: d
   Explanation: TCP is transport layer protocol

33. The packet of information at the application layer is called
   a) Packet
   b) Message
   c) Segment
   d) Frame
   Answer: b
34. Application layer protocol defines
   a) types of messages exchanged
   b) message format, syntax and semantics
   c) rules for when and how processes send and respond to messages
   d) all of the mentioned
   Answer: d

35. Which one of the following protocol delivers/stores mail to receiver server?
   a) simple mail transfer protocol
   b) post office protocol
   c) internet mail access protocol
   d) hypertext transfer protocol
   Answer: a

36. The ASCII encoding of binary data is called
   a) base 64 encoding
   b) base 32 encoding
   c) base 16 encoding
   d) base 8 encoding
   Answer: a

37. Which one of the following is an internet standard protocol for managing devices on IP network?
   a) dynamic host configuration protocol
   b) simple network management protocol
   c) internet message access protocol
   d) media gateway protocol
   Answer: b
38. Which protocol is a signalling communication protocol used for controlling multimedia communication sessions?
   a) session initiation protocol
   b) session modelling protocol
   c) session maintenance protocol
   d) none of the mentioned
   Answer: a

39. Which one of the following is correct?
   a) application layer protocols are used by both source and destination devices during a communication session
   b) application layer protocols implemented on the source and destination host must match
   c) both (a) and (b)
   d) none of the mentioned
   Answer: c

40. When displaying a web page, the application layer uses the
   a) HTTP protocol
   b) FTP protocol
   c) SMTP protocol
   d) none of the mentioned
   Answer: a

41. Multiple objects can be sent over a TCP connection between client and server in
   a) persistent HTTP
   b) non-persistent HTTP
   c) both (a) and (b)
   d) none of the mentioned
42. HTTP is ________ protocol.
   a) application layer
   b) transport layer
   c) network layer
   d) none of the mentioned
   Answer:a

43. In the network HTTP resources are located by
   a) uniform resource identifier
   b) unique resource locator
   c) unique resource identifier
   d) none of the mentioned
   Answer:a
   Explanation: URI which is composed of URL (uniform resource locator) and URN (uniform resource name)

44. HTTP client requests by establishing a __________ connection to a particular port on the server.
   a) user datagram protocol
   b) transmission control protocol
   c) broader gateway protocol
   d) none of the mentioned
   Answer:b

45. In HTTP pipelining
   a) multiple HTTP requests are sent on a single TCP connection without waiting for the corresponding responses
b) multiple HTTP requests cannot be sent on a single TCP connection

c) multiple HTTP requests are sent in a queue on a single TCP connection

d) none of the mentioned

Answer: a

46. FTP server listens for connection on port number
   a) 20
   b) 21
   c) 22
   d) 23

Answer: b

47. In FTP protocol, client contacts server using ____ as the transport protocol.
   a) transmission control protocol
   b) user datagram protocol
   c) datagram congestion control protocol
   d) stream control transmission protocol

Answer: a

48. In which mode FTP, the client initiates both the control and data connections.
   a) active mode
   b) passive mode
   c) both (a) and (b)
   d) none of the mentioned

Answer: b

49. The file transfer protocol is built on
   a) data centric architecture
   b) service oriented architecture
c) client server architecture
d) none of the mentioned
Answer: c

50. In file transfer protocol, data transfer can be done in
a) stream mode
b) block mode
c) compressed mode
d) all of the mentioned
Answer: d

51. The number of objects in a Web page which consists of 4 jpeg images and HTML text is ______
a) 4
b) 1
c) 5
d) None of the mentioned
Answer: c
Explanation: 4 jpeg images + 1 base HTML file

52. The default connection type used by HTTP is _____
a) Persistent
b) Non-persistent
c) Either of the mentioned
d) None of the mentioned
Answer: a

53. The time taken by a packet to travel from client to server and then back to the client is called ____
54. In the process of fetching a web page from a server the HTTP request/response takes ______ RTTs.
   a) 2
   b) 1
   c) 4
   d) 3
   Answer: b

55. The HTTP request message is sent in ____ part of three-way handshake.
   a) First
   b) Second
   c) Third
   d) None of the mentioned
   Answer: c

56. The first line of HTTP request message is called ____
   a) Request line
   b) Header line
   c) Status line
   d) Entity line
   Answer: a
   Explanation: The line followed by request line are called header lines and status line is the initial part of response message.
57. The values GET, POST, HEAD etc are specified in _____ of HTTP message
   a) Request line
   b) Header line
   c) Status line
   d) Entity body
   Answer: a
   Explanation: It is specified in the method field of request line in the HTTP request message.

58. The ______ method when used in the method field, leaves entity body empty.
   a) POST
   b) GET
   c) Both of the mentioned
   d) None of the mentioned
   Answer: b

59. The HTTP response message leaves out the requested object when _____ method is used
   a) GET
   b) POST
   c) HEAD
   d) PUT
   Answer: c

60. Find the oddly matched HTTP status codes
   a) 200 OK
   b) 400 Bad Request
   c) 301 Moved permanently
   d) 304 Not Found
   Answer: d
   Explanation: 404 Not Found.
61. Which of the following is not correct ?
   a) Web cache doesn't have its own disk space
   b) Web cache can act both like server and client
   c) Web cache might reduce the response time
   d) Web cache contains copies of recently requested objects
   Answer: a

62. The conditional GET mechanism
   a) Imposes conditions on the objects to be requested
   b) Limits the number of responses from a server
   c) Helps to keep a cache up to date
   d) None of the mentioned
   Answer: c

63. Which of the following is present in both an HTTP request line and a status line?
   a) HTTP version number
   b) URL
   c) Method
   d) None of the mentioned
   Answer: a

64. Expansion of FTP is
   a) Fine Transfer Protocol
   b) File Transfer Protocol
   c) First Transfer Protocol
   d) None of the mentioned
   Answer: b
65. FTP is built on _____ architecture
   a) Client-server
   b) P2P
   c) Both of the mentioned
   d) None of the mentioned
   Answer: a

66. FTP uses _____ parallel TCP connections to transfer a file
   a) 1
   b) 2
   c) 3
   d) 4
   Answer: b
   Explanation: Control connection and data connection.

67. Identify the incorrect statement
   a) FTP stands for File Transfer Protocol
   b) FTP uses two parallel TCP connections
   c) FTP sends its control information in-band
   d) FTP sends exactly one file over the data connection
   Answer: c
   Explanation: FTP is out-of-band as it has separate control connection.

68. If 5 files are transferred from server A to client B in the same session. The number of TCP connection between A and B is
   a) 5
   b) 10
   c) 2
   d) 6
Answer: d
Explanation: 1 control connection and other 5 for five file transfers.

69. FTP server
   a) Maintains state
   b) Is stateless
   c) Has single TCP connection for a file transfer
   d) None of the mentioned
   Answer: a

70. The commands, from client to server, and replies, from server to client, are sent across the control connection in ____ bit ASCII format
   a) 8
   b) 7
   c) 3
   d) 5
   Answer: b

71. Find the FTP reply whose message is wrongly matched
   a) 331 – Username OK, password required
   b) 425 – Can’t open data connection
   c) 452 – Error writing file
   d) 452 – Can’t open data connection
   Answer: d

72. Mode of data transfer in FTP, where all the is left to TCP
   a) Stream mode
   b) Block mode
c) Compressed mode
d) None of the mentioned
Answer: a

73. The password is sent to the server using _____ command
   a) PASSWD
   b) PASS
   c) PASSWORD
   d) None of the mentioned
   Answer: b

DNS

74. The entire hostname has a maximum of
   a) 255 characters
   b) 127 characters
   c) 63 characters
   d) 31 characters
   Answer: a

75. A DNS client is called
   a) DNS updater
   b) DNS resolver
   c) DNS handler
d) none of the mentioned
   Answer: b

76. Servers handle requests for other domains
   a) directly
   b) by contacting remote DNS server
c) it is not possible  
d) none of the mentioned  
Answer: b

77. DNS database contains  
a) name server records  
b) hostname-to-address records  
c) hostname aliases  
d) all of the mentioned  
Answer: b

78. If a server has no clue about where to find the address for a hostname then  
a) server asks to the root server  
b) server asks to its adjacent server  
c) request is not processed  
d) none of the mentioned  
Answer: a

79. Which one of the following allows client to update their DNS entry as their IP address change?  
a) dynamic DNS  
b) mail transfer agent  
c) authoritative name server  
d) none of the mentioned  
Answer: a

80. Wildcard domain names start with label  
a) @  
b) *
81. The right to use a domain name is delegated by domain name registers which are accredited by
   a) internet architecture board
   b) internet society
   c) internet research task force
   d) internet corporation for assigned names and numbers
   Answer: d

82. The domain name system is maintained by
   a) distributed database system
   b) a single server
   c) a single computer
   d) none of the mentioned
   Answer: a

83. Which one of the following is not true?
   a) multiple hostnames may correspond to a single IP address
   b) a single hostname may correspond to many IP addresses
   c) a single hostname may correspond to a single IP address
   d) none of the mentioned
   Answer: c

With my best wishes

   Eng. Reem Essam