1   Seven devices are arranged in a mesh topology. ……………physical channels link these devices.

A. Seven
B. Six
C. Twenty
D. Twenty-one

2   A ……….topology is a variation of star topology
A. Ring
B. Bus
C. Mesh
D. Tree

3   In a peer-to-peer network, each computer in a network is referred as ………..
A. Server
B. Client
C. Peer
D. Sender

4   Which layer provides the services to user?
A. application layer
B. session layer
C. presentation layer
D. physical layer

5   What is a Firewall in Computer Network?
A. The physical boundary of Network
B. An operating System of Computer Network
C. A system designed to prevent unauthorized access
D. A web browsing Software

6   What is the size of MAC Address?
1. A. 16-bits
B. 32-bits
C. 48-bits
D. 64-bits

7   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

8   TELNET, FTP, SMTP protocols fall in the following layer of OSI model.
A. Transport layer
B. Internet layer
C. Network layer
D. Application layer

9 Which of the following does not have a Net ID and Host ID?
   A. Class A
   B. Class B
   C. Class C
   D. Class D

10 A device operating at physical layer is called _____
   A. Router
   B. Gateway
   C. Bridge
   D. Repeater

11 Which of the following protocols are used to resolve the IP address into Mac address?
   A. ARP
   B. RARP
   C. DNS
   D. DHCP

12 Radio waves are…….
   A. Omnidirectional
   B. Unidirectional
   C. bidirectional
   D. none of the mentioned

13 Which of the following primarily uses guided media?
   A. Cellular telephone system
   B. Local telephone system
   C. Satellite communications
   D. Radio broadcasting

14 Which of the following performs modulation and demodulation?
   A. fiber optics
   B. Switch
   C. Modulator
   D. MODEM

15 ……………is a device that prevents the signal at the end of a bus backbone from echoing back on to the line
   A. Repeater
   B. Drop lines
   C. T-Connector
   D. Terminator

16 The core of an optical fiber is ………..
   A. glass
   B. Plastic
   C. glass or plastic
   D. metal

17 Public key system is useful because
A. It uses two keys.

B. There is no key distribution problem as public key kept in a commonly accessible database.

C. Private key can be kept secret.
D. It is a symmetric key system.

18 Message ……………..means that the sender and the receiver expect privacy.
A. Confidentiality
B. Integrity
C. Authentication
D. Nonrepudiation

19 The ………….is the encrypted message.
A. Cipher Script
B. Cipher Text
C. Secret Text
D. Secret Script

20 An electronic document that establishes your credentials when you are performing transactions.
A. Digital Code
B. Email
C. OTP
D. Digital Certificate

21 A mesh topology with 7 computers requires what number of cables to run among these computers?
A. 20
B. 22
C. 21
D. 23

22 A subnet mask in class A has 14 1s. How many subnets does it define?
A. 32
B. 8
C. 64
D. 128

23 Ad-hoc network is
A. a permanent network
B. temporary network

24 An _____ has infinitely many levels of intensity over a period of time.
A. analog signal
B. digital signal
C. both analog and digital
D. none of the analog and digital

25 ARP protocol is used to get
   A. physical address when logical address is known
   B. logical address when physical address is known
   C. physical address when application specific address is known
   D. none of the above

26 Class D IP addresses are used for
   A. Unicasting
   B. Multicasting
   C. Broadcasting
   D. Reserved for future use

27 Collision is not possible in _____ logical topology.
   a. Bus
   b. Star
   c. Token Ring
   d. none of the abo

28 Dialog control is a function of which layer of the OSI reference model?
   a. Network
   b. Transport
   c. Session
   d. Presentation

29 Do not use repeater when
   a. there is heavy network traffic
   b. segments of the network are using different access methods
   c. data filtering is need
   d. All of the above

30 Fault isolation and reconfiguration of network is difficult in _____ topology.
   a. star
   b. ring
   c. mesh
   d. bus

31 Flow control and Error control are carried out at
   a. Transport layer only
   b. Data link layer only
   c. Transport layer and Data link layer
   d. None of the above

32 For class A IP address, which of the following is true?
   a. First 3 bytes represent net id and last 1 byte represent host id.
   b. First 2 bytes represent net id and last 2 bytes represent host id.
   c. First 22 bits represent net id and last 10 bits represent host id.
   d. First 1 byte represent net id and last 3 bytes represent host id.

33 Frequency Modulation (FM) uses which of the following unbounded transmission media?
   a. Micro Waves
   b. Radio Waves
   c. Infrared Waves
   d. Twisted Pair Cable

34 Generally supernetting is performed with _____ addresses and subnetting is performed with _____ addresses.
   a. Class A, Class B or C
   b. Class B, Class A or C
   c. Class C, Class A or B

35 Given the IP address 201.14.78.65 and the subnet mask 255.255.255.224, what is the subnet address?
   a. 201.14.78.32
   b. 201.14.78.65
   c. 201.14.78.64
   d. 201.14.78.12

36 Global Positioning System(GPS) is an example _____ satellite.
   a. LEO
   b. GEO
   c. MEO
   d. All of the Above

37 How many bits are user as netid for class A IP addresses?
   a. 8
   b. 16
   c. 24
   d. 32

38 How many bits from hostid will be used as netid bits if we divide a network into 8 smaller sub networks?
   a. 1
   b. 2
   c. 3
   d. 4

39 How many host can be assigned different IP addresses to a network of class C.
   a. 253
   b. 254
   c. 255
   d. 256

40 How many layer an OSI reference model have?
   a. 5
   b. 6
   c. 7
   d. 8

41 How many OSI layers of intermediate nodes are used when device A sends message to device B in different network?
a. 1
b. 2
c. 3
d. none of the above

42 Identify the class of the following IP address: 4.5.6.7
a. class A
b. class B
c. class C
d. class D

43 If you see a group of networked computers connected to a central backbone cable you know that the network has what type of physical topology?
a. bus
b. star
c. ring
d. cannot tell

44 If you see a group of networked computers connected to a central hub, you know that the network has what type of physical topology?
a. Ring
b. Star
c. Bus
d. Cannot tell

45 In _____ mode, each station can both transmit and receive, but not at the same time.
a. simplex
b. half duplex
c. duplex
d. none of the above

46 The IPv4 address is of how many bits?
32
128
16
64

47 What is the range of class C addresses?
0-127
128-191
192-223
224-239
240-255

48 In the sending computer, UDP receives a data unit from the _____ layer.
a. application

b. transport
c. network
d. datalink

49 In the sending computer, UDP sends a data unit to the _____ layer.
a. application
b. transport
c. network
d. datalink

50 IP is responsible for _____ communication while TCP is responsible for _____ communication.
a. host-to-host; process-to-process
b. process-to-process;host-to-host
c. process-to-process;network-to-network
d. network-to-network;process-to-process

51 Low Earth Orbit (LEO) satellite have _____ orbit.
a. Equatorial
b. Inclined
c. Polar
d. All of the Above

52 Media such as data tapes and removable optical disks is well suited for _____.
a. Online storage
b. Near-line storage
c. Offline storage
d. None of the above

53 Modulation refers to
a. conversion of analog signals into analog data
b. conversion of analog signals into digital signals
c. conversion of digital signals into digital data
d. conversion of digital signals into analog signals

54 Multiply the header length field by _____ to find the total number of bytes in the TCP header.
a. 2
b. 4
c. 6
d. 8

55 Network is used to
a. share resources
b. information sharing
c. IP telephony
d. e-mail
e. all of the above

56 Router cannot regenerate signals. State true or false.
  a. TRUE
  b. FALSE

57 Segmentation and Reassembly is performed at
  a. Transport layer
  b. Data link layer
  c. Application layer
  d. Presentation layer

58 State true or false. Data communication can occur only through wired connection.
  a. TRUE
  b. FALSE

59 State true or false. Digital signal is less error prone and can be rectified easily.
  a. TRUE
  b. FALSE

60 State True or False. If a signal changes instantaneously, its frequency is Zero.
  a. TRUE
  b. FALSE

61 State true or false. If some signal does not change at all, its frequency Zero.
  a. TRUE
  b. FALSE

62 Strong central security and central file storage is possible in _____ network.
  a. Server based
  b. Peer based
  c. Both Server based and Peer Based
  d. None of Server based and Peer based

63 TCP is the protocol of _____ layer of TCP/IP model.
  a. Network,
  b. Transport
  c. Application
  d. Physical & Data link

64 TCP lies between the _____ and the _____ layers of the TCP/IP protocol suite.
  a. application;transport
  b. transport;datalink
  c. application;network
  d. transport;network

65 TCP uses _____ for error detection.
  a. checksum
  b. acknowledgement
  c. time-out
  d. all of the above

66 The _____ model supports both connectionless and connection oriented communication in the network layer
   a. TCP/IP
   b. OSI
   c. Both
   d. None

67 The _____ model supports only one mode in the network layer (connectionless) but both in the transport layer (connectionless and connection oriented)
   a. TCP/IP
   b. OSI
   c. both TCP/IP and OSI
   d. none of the TCP/IP & OSI

68 The _____ defines the client process.
   a. ephemeral port number
   b. IP address
   c. well-known port number
   d. physical address

69 The _____ layer in TCP/IP protocol suit contains Internetworking Protocol.
   a. Network
   b. Transport
   c. Application
   d. Physical & Datalink

70 The _____ logical topology uses the token concept to transmit data within network.
   a. bus
   b. star
   c. ring
   d. mesh

71 The _____ server is specializing in only a few tasks, that requires fewer resources .
   a. dedicated
   b. nondedicated
   c. dedicated & nondedicated
   d. none of the above

72 The _____ carry signal in light form.
   a. twisted pair cable
   b. coaxial cable
   c. fiber optics
   d. none of the above

73 The _____ field is used for error detection.
   a. urgent pointer
   b. checksum
   c. sequence number

d. acknowledgment number

74 The _____ is required for communication between to system within the same network.
a. logical address
b. IP address
c. physical address
d. port number

75 The _____ is required for communication between two system within the same network.
a. logical address
b. IP address
c. physical address
d. port number

76 The _____ represent the capacity of the medium to carry information.
a. frequency
b. bandwidth
c. amplitude
d. bit rate

77 The _____ command in windows is used to retrieve the MAC address of your computer?
a. getmymac
b. whatismymac
c. getmac
d. None of the above

78 The definition of reliable delivery includes which of the following?
a. error-free delivery
b. receipt of the complete message
c. in-order delivery
d. all of the above

79 The following IP address belongs to which class?
 10110011   11110000 00001111 10101010
a. Class A
b. Class B
c. Class C
d. Class D

80 The layers of the OSI model (in order) are included in which of the following choices?
a. Physical, Data Link, Network, Transport, Session, Presentation, Application
b. Physical, Data Link, Network, Transport, Presentation, Session Application
c. Physical, Network, Data Link, Transport, Presentation, Session Application
d. Physical, Data Link, Transport, Network, Presentation, Session Application

81 The Option field of the TCP header ranges from 0 to _____ bytes.
a. 10
b. 20

c. 40
d. 60

82 The subnet mask for a class C network is 255.255.255.192. How many subnetworks are available?
   a. 2
   b. 4
   c. 8
   d. 192

83 Twisted pair cable belongs to _____ transmission media.
   a. unguided
   b. guided
   c. wireless
   d. free space

84 UDP and TCP are both _____ layer protocol.
   a. application
   b. network
   c. transport
   d. datalink

85 UDP needs the _____ address to delivery the user datagram to the correct application program.
   a. port
   b. application
   c. internet
   d. physical

86 What is the default mask for class C?
   a. 11111111 11111111 11111111 00000000
   b. 11111111 11111111 00000000 00000000
   c. 11111111 00000000 00000000 00000000
   d. 11111111 11111111 11111111 11111111

87 What is the full form of OSI?
   a. Open Standard Interface
   b. Open Systems Interface
   c. Open Standard Institute
   d. Open Systems Interconnection

88 What is the maximum size of a 10BASE2 network?
   a. 100 meters
   b. 200 meters
   c. 300 meters
   d. 500 meters

89 What is the supernet mask for a supernet composed of 16 class C addresses?
   a. 255.255.240.16

b. 255.255.16.0

c. 255.255.248.16

d. 255.255.240.0

90 Which class addresses are not divided into netid and hostid?

a. Class D

b. Class E

c. Class D & E

d. None of the abve

91 Which class(es) IP addresses are wasted in classful addressing?

a. Class A

b. Class B

c. Class A & B

d. None of the above

92 Which file service is responsible for creating duplicate copies of files to protect against file damage?

a. File Transfer

b. File Update Synchronization

c. File Archiving

d. Remote File Access

93 Which lower layer provides services to presentation layer?

a. session layer

b. transport layer

c. application layer

d. None of the above

94 Which of the following can concurrently provide and request services?

a. Server

b. Client

c. Peer

d. None of the above

95 Which of the following can result performance gain in efficiency by 10%-300%?

a. Virtual Memory

b. Cache Memory

c. RAM

d. ROM

96 Which of the following defines bandwidth?

a. capacity of the medium

b. number if bits transmitted per second

c. number of bytes transmitted per second

d. none of the above

97 Which of the following defines bit rate?

a. Capacity of the medium

b. **number of bits transmitted per second**

c. number of bytes transmitted per second

d. none of the above

98 Which of the following do not have filtering capability?

a. Routers

b. Bridges

c. Repeaters

d. Switches

99 Which of the following fiber optical cable is used to cover longer distance?

a. Singlemode

b. Multimode grade index

c. Multimode step index

d. None of the above

100 Which of the following function does UDP perform?

a. process-to-process communication

b. host-to-host communication

c. end-to-end reliable data delivery

d. all of the above

101 Which of the following have MAC address and IP address?

a. Routers

b. Bridges

c. Hubs

d. Repeaters

102 Which of the following is a network address?

a. First Address of a block

b. Last Address of a block

c. Both a & b

d. None of a & b

103 Which of the following is a technique to improve the processing power of a processor?

a. Symmetric Multiprocessing

b. Employ cache memory

c. Use single high speed processor

d. None of the above

104 Which of the following is legal port number?

a. 0

b. 513

c. 65535

d. All of the above

105 Which of the following is not a smart network device?

a. Router

b. Switch

c. Bridge
d. Repeater

106 Which of the following is odd one out?
a. Radiowaves
b. microwaves
c. infrared waves
d. fiber optics

107 Which of the following is the functionality of network layer?
a. Synchronization of bits
b. Dialog control
c. Compression
d. logical addressing

108 Which of the following is true for protocol?
a. Protocols are the signal transmitted across networks.
b. Protocols are resources shared among network nodes.
c. Protocols are the agreed upon rules for devices to exchange information.
d. None of the above

109 Which of the following model did not originally clearly distinguish between services, interfaces, and protocols?
a. TCP/IP
b. OSI
c. TCP/IP & OSI
d. none of the above

110 Which of the following network device works on network, data-link and physical layer?
a. Bridges
b. Routers
c. Repeaters
d. Hubs

111 Which of the following OSI model layer adds header as well as trailer?
a. Physical
b. Datalink
c. Network
d. Transport

112 Which of the following takes more time to make a complete trip of the Earth?
a. LEO Satellite
b. MEO Satellite
c. GEO Satellite
d. None of the Above

113 Which of the following transmission media is used for Cable TV networks?
a. Twisted pair cable
b. Coaxial cable

    c. Fiber optics
    d. None of the above

114 Which of the following transmission media is used for local area networks?
    a. Twisted pair cable
    b. Coaxial cable
    c. Fiber optics
    d. None of the above

115 Which OSI layer is concerned with data encryption?
    a. Network
    b. Transport
    c. Session
    d. Presentation

116 Which physical topology needs proper termination of a cable to avoid reflection?
    a. Star
    b. Ring
    c. Mesh
    d. None of the above

117 Which two of the following are file services?
    A. Archiving
    B. File segmenting
    C. Update synchronization
    D. Data integrity
    a. A & B
    b. B & C
    c. C & D
    d. A & C

118 Which type of network is most likely confined to a building or a campus?
    a. Local Area Network
    b. Metropolitan Area Network
    c. Wide Area Network
    d. Personal Area Network

119 You have a small office of few computers. Each machine is act as both client and server, What type of network are you running?
    a. peer-to-peer
    b. client-server
    c. wide area network
    d. none of the above

120 Which of the following uses pair of private and public keys, for confidentiality?
    a. Asymmetric key cipher
    b. Symmetric key cipher
    c. Both a & b
    d. None of the above

121 Which of the following means protection against unauthorised modification in context of network security?
a. Confidentiality
b. Integrity
c. Availability
d. None of the above

122 Which of the following handles confidentiality and integrity ?
a. Digital Signature
b. Encryption and decryption
c. Traditional ciphers
d. Substitution cipher