Id	**1**
Question	IEEE 802.8 is/was –
A	IBM Token Bus
B	Integrated Services LAN
C	Wireless LAN and Mesh
D	Fiber Optic TAG
Answer	D

Id	**2**
Question	What is the function of Network Interface Cards?
A	connects the clients, servers and peripherals to the network through a port
B	allows you to segment a large network into smaller, efficient networks
C	connects networks with different protocols like TCP/IP
D	boost the signal between two cable segments or wireless access points
Answer	A
Marks	1
Unit	Network Administrator

Id	**3**
Question	A device which is used to boost the signal between two cable segments or wireless access points is
A	Booster
B	Repeater
C	Switch
D	Router
Answer	C

Id	**4**
Question	Number of Blocks in class C are –
A	2^7
B	2^8
C	2^{14}
D	2^9
Answer	A

Id	**5**
Question	If the first address is First address = 18.14.12.0/22. What is the last address?
A	18.14.15.128/22
B	18.14.15.64/22
C	18.14.15.32/22
D	18.14.15.255/22
Answer	D

Id	**6**
Question	Convert the following binary notation to hexadecimal notation – 10000000 00001011 00000011 00011111
A	0x 80 0B 03 1E
B	0x 81 0B 04 1E
C	0x 80 0C 03 1F
D	0x 80 0B 03 1F
Answer	D

Id	**7**
Question	In an IP packet, the value of HLEN is 516 and the value of the total length field is 002816.What is the efficiency of this datagram?
A	80%
B	50%
C	66%
D	75%
Answer	B

Id	**8**
Question	In which topology there is a central controller or hub?
A	Star
B	Mesh
C	Ring
D	Bus
Answer	A

Id	**9**
Question	Multiplexing technique that shifts each signal to a different carrier frequency
A	FDM
B	TDM
C	Both FDM & TDM
D	None of the mentioned
Answer	A

Id	**10**
Question	A topology that is responsible for describing the geometric arrangement of components that make up the LAN.
A	Complex
B	Physical
C	Logical
D	Incremental
Answer	B

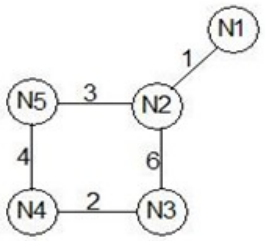
Id	**11**
Question	A _____WAN can be developed using leased private lines or any other transmission facility.
A	Hybrids
B	peer-to-peer
C	Two-tiered
D	Three-tiered
Answer	B

Id	**12**
Question	An Internet Service Provider(ISP) has the following chunk of CIDR-based IP addresses available with it:245.248.128.0/20. The ISP wants to give half of this chunk of addreses to Organization A, and a quarter to Organization B, while retaining the remaining with itself. Which of the following is a valid allocation of addresses to A and B?
A	245.248.136.0/21 and 245.248.128.0/22
B	245.248.128.0/21 and 245.248.128.0/22
C	245.248.132.0/22 and 245.248.132.0/21
D	245.248.136.0/22 and 245.248.132.0/21
Answer	A

Id	**13**
Question	Consider a source computer (S) transmitting a file of size 106 bits to a destination computer (D) over a network of two routers (R1 and R2) and three links (L1, L2 and L3). L1 connects S to R1;L2 connects R1 to R2; and L3 connects R2 to D. Let each link be of length 100km. Assume signals travel over each link at a speed of 10^8 meters per second. Assume that the link bandwidth on each link is 1Mbps. Let the file be broken down into 1000 packets each of size 1000 bits. Find the total sum of transmission and propagation delays in transmitting the file from S to D?
A	1005ms
B	1010ms
C	3000ms
D	3003ms
Answer	A

Id	**14**
Question	Consider an instance of TCP's Additive Increase Multiplicative Decrease(AIMD) algorithm where the window size at the start of the slow start phase is 2 MSS and the threshold at the start of the first transmission is 8 MSS. Assume that a time out occurs during the fifth transmission. Find the congestion window size at the end of the tenth transmission.
A	8 MSS
B	14 MSS
C	7 MSS
D	12 MSS
Answer	C

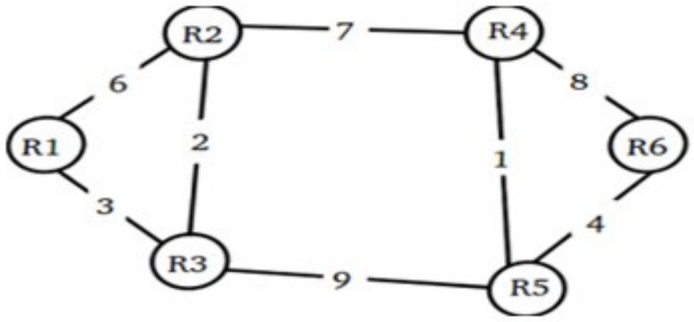
Id	**15**
Question	A layer-4 firewall (a device that can look at all protocol headers up to the transport layer) CANNOT
A	block HTTP traffic during 9:00PM and 5:00AM
B	block all ICMP traffic
C	stop incoming traffic from a specific IP address but allow outgoing traffic to same IP
D	block TCP traffic from a specific user on a specific IP address on multi-user system during 9:00PM and 5:00AM
Answer	A

Id	**16**
Question	Consider a network with five nodes, N1 to N5, as shown below.  The network uses a a Distance Vector Routing Distance Vector Routing protocol. Once the routes have stabilized, the distance vectors at different nodes are as following. N1:(0, 1, 7, 8, 4) N2:(1, 0, 6, 7, 3) N3:(7, 6, 0, 2, 6) N4:(8, 7, 2, 0, 4) N5:(4, 3, 6, 4, 0) Each distance vector is the distance of the best known path at that instance to nodes, N1 to N5, where the distance to itself is 0. Also, all links are symmetric and the cost is identical in both directions. In each round, all nodes exchange their distance vectors with their respective neighbours. Then all nodes update their distance vectors. In between two rounds, any change in cost of a link will cause the two incident nodes to change only that entry in their distance vectors. The cost of link N2-N3 reduces to 2 (in both directions). After the next round of update what will be the new distance vector at node, N3?
A	(3, 2, 0, 2, 5)
B	(3, 2, 0, 2, 6)
C	(7, 2, 0, 2, 5)

D	(7, 2, 0, 2, 6)
Answer	A

Id	**17**
Question	One of the header fields in an IP datagram is the Time to Live (TTL) field. Which of the following statements best explains the need for this field?
A	It can be used to priortize packets
B	It can be used to reduce delays
C	It can be used to optimize throughput
D	It can be used to prevent packet looping
Answer	D

Id	**18**
Question	Suppose computers A and B have IP addresses 10.105.1.113 and 10.105.1.91 respectively and they both use the same netmask N. Which of the values of N given below should not be used if A and B should belong to the same network?
A	255.255.255.0
B	255.255.255.128
C	255.255.255.192
D	255.255.255.224
Answer	D

Id	**19**
Question	Consider a network with 6 routers R1 to R6 connected with links having weights as shown in the following diagram  All the routers use the distance vector based routing algorithm to update their routing tables. Each router starts with its routing table initialized to contain an entry for each neighbour with the weight of the respective connecting link. After all the routing tables stabilize, how many links in the network will never be used for carrying any data?
A	4
B	3
C	2
D	1
Answer	C

Id	**20**
Question	Packets of the same session may be routed through different paths in:
A	TCP, but not UDP
B	TCP and UDP
C	UDP, but not TCP
D	Neither TCP nor UDP
Answer	B

Id	**21**
Question	_____is an analog multiplexing technique usually involving signals that are not in the visible light frequencies.
A	WDM
B	TDM
C	FDM
D	MDM
Answer	C

Id	**22**
Question	_____ is an digital multiplexing technique usually involving signals that are not in the visible light frequencies.
A	WDM
B	TDM
C	FDM
D	MDM
Answer	B

Id	**23**
Question	Transmission media are usually categorized as _____.
A	Fixed or Unfixed
B	Guided or Unguided
C	Determinate of Indeterminate
D	Metallic or Nonmetallic
Answer	B

Id	**24**
Question	How many bits internet address is assigned to each host on a TCP/IP internet which is used in all communication with the host?
A	16 bits
B	32 bits
C	48 bits
D	64 bits
Answer	B

Id	**25**
Question	In OSI model, which of the following transformation from machine format into that understandable by user.
A	Application
B	Session
C	Physical
D	Presentation
Answer	D

Id	**26**
Question	The Media Access control sub-layer resides in which OSI layer.
A	Transport
B	Network
C	Physical
D	Data Link
Answer	D

Id	**27**
Question	_____ cable consist of an inner copper core and second conducting outer sheath.
A	Twisted-pair
B	Coaxial
C	Fiber-optic
D	Shielded twisted -Pair
Answer	B

Id	**28**
Question	The main reason for transition from IPv4 to IPv6 is
A	Huge number of systems on the internet
B	Very low number of system on the internet
C	Providing standard address
D	None of the mentioned
Answer	A

Id	**29**
Question	The correct format of packet in tunnel that uses IPv4 region is 1. IPv6 header 2. Payload 3. IPv4 header
A	3-1-2
B	3-2-1
C	1-2-3
D	1-3-2
Answer	A

Id	**30**
Question	Configuration management can be divided into two subsystems which are
A	Reconfiguration and documentation
B	Management and configuration
C	Documentation and dialing up
D	both a and c
Answer	A

Id	**31**
Question	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

Id	**32**
Question	What is Iterative Servers?
A	When the server process knows in advance how long it takes to handle each request and it handles each request itself
B	When the amount of work required to handle a request is unknown and the server starts another process to handle each request.
C	When the server process knows in advance how long it takes to handle each request and the server starts another process to handle each request
D	When the amount of work required to handle a request is unknown and the server handles each request itself
Answer	A

Id	**33**
Question	Suppose two IPv6 nodes want to interoperate using IPv6 datagram’s but are connected to each other by intervening IPv4 routers. The best solution here is
A	Use dual-stack approach
B	Tunneling
C	No solution
D	Replace the system
Answer	B

Id	**34**
Question	Port number used by Network Time Protocol(NTP) with UDP is
A	161
B	123
C	162
D	124
Answer	B

Id	**35**
Question	In Point to Point Protocol, framing techniques done according to the
A	Bit oriented Protocol
B	Byte oriented Protocol
C	High-Level Data Link Protocol
D	Link Control Protocol
Answer	B

Id	**36**
Question	If the sender is a host and wants to send a packet to another host on the same network, the logical address that must be mapped to a physical address is _____.
A	the destination IP address is in datagram header
B	the IP address of the router found in the routing table
C	either a or b
D	none of the above
Answer	A

Id	**37**
Question	In _____, the chance of collision can be reduced if a station senses the medium before trying to use it.
A	CSMA
B	MA
C	CDMA
D	FDMA
Answer	A

Id	**38**
Question	Mapping a name to an address or an address to a name is called
A	Name-address Generations
B	Name-address Abbreviations
C	Name-address Resolution
D	Name-address Information
Answer	C

Id	**39**
Question	DNS database contains
A	Name server record
B	Hostname-to-address record
C	hostname aliases
D	All of the above
Answer	D

Id	**40**
Question	What is a Zone in DNS?
A	A set of distinct but non-contiguous portions of the domain name space managed by multiple administrators
B	A distinct, contiguous portion of the domain name space managed by multiple administrators
C	A set of distinct but non-contiguous portions of the domain name space managed by a single administrator
D	A distinct, contiguous portion of the domain name space managed by a single administrator
Answer	D

Id	**41**
Question	In Address Resolution Protocol (ARP), a packet is encapsulated directly into a
A	Data link Integer
B	Network Frame
C	Network Station
D	Data link Frame
Answer	D

Id	**42**
Question	If an Address Resolution Protocol (ARP) request is broadcast, an ARP reply is
A	Universal
B	Unicast
C	Multicast
D	Generated locally
Answer	B

Id	**43**
Question	In Address Resolution Protocol (ARP), station can send its physical address and ask for a
A	Long time lease
B	Lease
C	Short Time Lease
D	Logical Lease
Answer	C

Id	**44**
Question	Which of the following is the ethernet broadcast address used in ARP and RARP requests?
A	255.255.255.255
B	08:00:20:11:aa:01
C	ff:ff:ff:ff:ff:ff
D	224.0.0.0
Answer	C

Id	**45**
Question	Which of the following describes the function of ARP?
A	It is used to map a 32-bit IP address to a 48-bit ethernet address.
B	It is used to map a 48-bit ethernet address to a 32-bit IP address.
C	It is used to map a 32-bit ethernet address to a 48-bit IP address.
D	It is used to map a 48-bit IP address to a 32-bit ethernet address.
Answer	A

Id	**46**
Question	Which of the following describes the function of RARP?
A	It is used to map a 32-bit IP address to a 48-bit ethernet address.
B	It is used to map a 48-bit ethernet address to a 32-bit IP address.
C	It is used to map a 32-bit ethernet address to a 48-bit IP address.
D	It is used to map a 48-bit IP address to a 32-bit ethernet address.
Answer	B

Id	**47**
Question	Which of the following configuration files are consulted by the RARP daemon? Choose 2.
A	**/etc/inet/netmasks**
B	**/etc/inet/hosts**
C	**/etc/ethers**
D	**/etc/inetd.conf**
Answer	B

Id	**48**
Question	You want to implement a mechanism that automates the IP configuration, including IP address, subnet mask, default gateway, and DNS information. Which protocol will you use to accomplish this?
A	SMTP
B	SNMP
C	DHCP
D	ARP
Answer	C

Id	**49**
Question	How many levels of addressing is provided in TCP/IP protocol?
A	One
B	Two
C	Three
D	Four
Answer	D

Id	**50**
Question	A device operating at network layer is called ____
A	Router
B	Equalizer
C	Bridge
D	Repeater
Answer	A

Id	**51**
Question	A device operating at network layer is called ____
A	Router
B	Equalizer
C	Bridge
D	Repeater
Answer	D

Id	**52**
Question	IANA stands for _____
A	Internet Assigned Numbers Authority
B	Internal Assigned Numbers Authority
C	Internet Associative Numbers Authoritative
D	Internal Associative Numbers Authority
Answer	A

Id	**53**
Question	VLSM stands for _____
A	Version Length Subnet Masking
B	Variable Length Subnet Masking
C	Variable Length Surface Masking
D	Version Length Surface Masking
Answer	B

Id	**54**
Question	_____ adjusts the segment size to be smaller than MTU.
A	Internet Protocol 6
B	User Datagram Protocol
C	Internet Protocol 4
D	Transmission Control Protocol
Answer	D

Id	**55**
Question	ISDN stands for _____
A	Integrated Services Digital Network
B	Integrated Services Discrete Network
C	Integrated Services Digital Node
D	Integrated Services Discrete Node
Answer	A

Id	**56**
Question	Signalling component that supports traffic between the end-user and network is called _____
A	Network signalling
B	Digital subscriber signalling
C	Access signalling
D	Subscriber system signalling
Answer	C

Id	**57**
Question	Information bearing channels in ISDN are called _____
A	D channels
B	Data channels
C	B channels
D	Voice channels
Answer	C

Id	**58**
Question	ISDN integrates speech and data on
A	Different lines
B	Same lines
C	Different & Same lines
D	None of the mentioned
Answer	B

Id	**59**
Question	ISDN is a
A	Packet switched network
B	Circuit switched telephone network
C	Packet switched & Circuit switched telephone network
D	None of the mentioned
Answer	C

Id	**60**
Question	U-interface is the two wire interface between
A	Computing device and terminal adapter
B	Terminal adapter and exchange unit
C	Exchange unit and network terminating unit
D	Computing device and exchange unit
Answer	C

Id	**61**
Question	Attributes of ISDN have
A	Definition
B	Allowable values
C	Definition & Allowable values
D	None of the mentioned
Answer	C

Id	**62**
Question	Switching in Internet is done by using datagram approach to packet switching at the
A	network layer
B	application layer
C	data link layer
D	physical layer.
Answer	A

Id	**63**
Question	A Circuit-Switched Network is made of a set of switches connected by physical
A	links
B	media
C	nodes
D	lines
Answer	A

Id	**64**
Question	A switch in a datagram network uses a
A	destination address
B	sender address
C	routing table
D	header
Answer	C

Id	**65**
Question	Routing processor searching for routing table is called
A	switch fabric
B	buffer
C	table lookup
D	rolling table
Answer	D

Id	**66**
Question	Which IPv6 command will verify that you have received a Router Advertisement message from a local router?
A	Router#show ipv6 neighbors
B	Router#show ipv6 cache
C	Router#show ipv6 ra
D	Router#show neighbors
Answer	A

Id	**67**
Question	You need to ping an IPv6 address of 2001:db8:3:4::2. Which command will achieve this?
A	Router#ping 2001:db8:3:4::2
B	Router#ipv6 ping 2001:db8:3:4::2
C	Router#pingv6 2001:db8:3:4::2
D	Router#ping6 2001:db8:3:4::2
Answer	A

Id	**68**
Question	An administrator calls you and states that they believe an interface is down on a router you maintain. Which command will show only the interface, the IP address configured, and the status of the interface?
A	Router#show ip interface
B	Router#show interface
C	Router#show ip interface brief
D	Router#show interface brief
Answer	D

Id	**69**
Question	You perform a traceroute to a destination network and receive back several lines of output. On the end of each line are three parameters such as 1 192.168.1.1 20 msec 34 msec 67 msec . What do they mean?
A	They are the three response times of each ICMP request.
B	They are the minimum, maximum, and average of the ICMP query.
C	They are the minimum, average, and maximum of the ICMP query.
D	They are the maximum, average, and minimum of the ICMP query.
Answer	C

Id	**70**
Question	You want to ping a router on your network from interface Serial 0/0 and not the path in the routing table. How can you achieve this?
A	This cannot be done; packets cannot disregard the routing table.
B	Enter the interface in configuration mode, and ping the remote router.
C	Enter extended ping, and specify the exit interface.
D	Configure a temporary route for the router exiting the interface.
Answer	C

Id	**71**
Question	You ping from a router to another router and receive back !!!!! . What does this mean?
A	All packets have been dropped.
B	All packets are successfully acknowledged.
C	There is congestion in the path.
D	The packets were received, but after the ICMP timeout
Answer	B

Id	**72**
Question	Which command on Windows will allow you to verify your IP address, subnet mask, default gateway, and MAC address?
A	C:\>ipconfig
B	C:\>ipstatus
C	C:\>ipconfig /all
D	C:\>hostname/li>
Answer	C

Id	**73**
Question	How do congestion avoidance tools help to prevent tail drop?
A	When the queue depth is full, a percentage of TCP packets are dropped.
B	When the queue depth is empty, a percentage of TCP packets are dropped
C	When the queue depth is below the minimum threshold, a percentage of TCP packets are dropped.
D	When the queue depth is above the minimum threshold, a percentage of TCP packets are dropped
Answer	D

Id	**74**
Question	When configuring QoS for packet shaping, which is an important guideline to follow?
A	Always make the bit rate small.
B	Always make the time interval small.
C	Always make the time interval large.
D	Always use the maximum bit rate.
Answer	B

Id	**75**
Question	Which command would use the MAC address for the host portion of the IPv6 address on a router interface?
A	Router(config-if)# ip address eui-64 2001:db8:1234::/64
B	Router(config-if)# ip address 2001:db8:1234::/64 mac-address
C	Router(config-if)# ipv6 address 2001:db8:1234::/64 eui-64
D	Router(config-if)# ipv6 address 2001:db8:1234::/64 ma
Answer	C

Id	**76**
Question	Which command would configure a single anycast address on a router’s interface?
A	Router(config-if)# ip address 2001:db8:1:1:1::12/64
B	Router(config-if)# ipv6 address 2001:db8:1:1:1::12/64 anycast
C	Router(config-if)# ipv6 anycast address 2001:db8:1:1:1::12/128
D	Router(config-if)# ipv6 address 2001:db8:1:1:1::12/128 anycast
Answer	D

Id	**77**
Question	Which address is a multicast address?
A	fe80:db80:db01:ada0:1112::1
B	2005:acd:234:1132::43
C	fd00:ac34:34b:8064:234a::7
D	ff00::10
Answer	D

Id	**78**
Question	Which address is a link-local address?
A	fe80:db80:db01:ada0:1112::1
B	2005:acd:234:1132::43
C	fd00:ac34:34b:8064:234a::7
D	ff00:101:4ab0:3b3e::10
Answer	A

Id	**79**
Question	Which switch type in a switch stack downloads it configuration, forwarding table,and ACLs?
A	Provisioned switch
B	Subordinate switch
C	Topology switch
D	Master switch
Answer	D

Id	**80**
Question	Actual communication in a circuit-switched network requires
A	one phase
B	two phases
C	three phases
D	four phases
Answer	C

Id	**81**
Question	A point-to-point link in a remote backbone connected by remote bridges acts as
A	Ad hoc network
B	LA Network
C	WA Network
D	MA Network
Answer	B

Id	**82**
Question	Each LAN type has its own strategy in sending of
A	Bits
B	Bytes
C	Data
D	Frames
Answer	A

Id	**83**
Question	No protocol at data link layer allows fragmentation and reassembly of
A	Packets
B	Frames
C	Stations
D	Nodes
Answer	B

Id	**84**
Question	In transparent bridges, redundancy of bridges can create loops in system which is very
A	Desirable
B	Undesirable
C	Rare
D	Easy to unloop
Answer	B

Id	**85**
Question	There is no filtering capability in
A	hubs
B	bridges
C	gateways
D	repeaters
Answer	D

Id	**86**
Question	A repeater connects segments of same
A	Wide area network
B	Wireless Network
C	Local area network
D	Metropolitan Network
Answer	C

Id	**87**
Question	1000Base-LX has used two wires for long wave are
A	STP Cable
B	UTP Cable
C	Fiber Optic
D	Coaxial Cable
Answer	C

Id	**88**
Question	Terms that control flow and errors in full duplex switched Ethernet is called
A	LLC Sub layer
B	MAC Sub layer
C	LLC Control Layer
D	MAC Control Layer
Answer	D

Id	**89**
Question	In 10Base2, cable is
A	Thick
B	Thin
C	Twisted Pair
D	None of the above
Answer	B

Id	**90**
Question	A destination address can be
A	Unicast
B	multicast
C	broadcast
D	all of the above
Answer	D

Id	**91**
Question	In Ethernet frame, both destination and sender addresses are of length
A	1 Byte
B	2 Bytes
C	4 Bytes
D	6 Bytes
Answer	D

Id	**92**
Question	DNS can be pictured as an inverted hierarchical tree structure with one root node at top and a maximum of
A	128 Levels
B	129 Levels
C	130 Levels
D	131 Levels
Answer	A

Id	**93**
Question	Domain, which is used to map an address to a name is called
A	Generic Domains
B	Inverse Domain
C	Main Domains
D	Sub-Domains
Answer	B

Id	**94**
Question	DNS client adds suffix atc.jhda.edu. before passing address to the
A	DNS Client
B	DNS Server
C	DNS Label
D	DNS Recipient
Answer	B

Id	**95**
Question	In Domain Name System (DNS), well known port 53 provides services of
A	UDP
B	TCP
C	ICMP
D	Both A & B
Answer	D

Id	**96**
Question	FQDN stands for
A	Filled Quality Domain Name
B	False Quality Domain Name
C	Fully Qualified Domain Name
D	First Qualified Domain Name
Answer	D

Id	**97**
Question	An application-level protocol in which a few manager stations control a set of agents, known as
A	HTML
B	TCP
C	SNMP
D	SNMP/IP
Answer	C

Id	**98**
Question	Configuration management can be divided into two subsystems which are
A	Reconfiguration and documentation
B	Management and configuration
C	Documentation and dialing up
D	both a and c
Answer	A

Id	**99**
Question	Main difference between SNMPv3 and SNMPv2 is the
A	management
B	integration
C	classification
D	enhanced security
Answer	D

Id	**100**
Question	Based on predefined policy of Network management, controlling access to network is task of
A	Fault Management
B	Performance Management
C	Active Management
D	Security Management
Answer	D