

Network Design - 2016 SLC

- 1) _____ is a set of rules applied by the owner or manager of a network, website or large computer system that restrict the ways in which the network, website, or system may be used.
 - A) Logging policy
 - B) Audit log
 - C) Acceptable use policy
 - D) Disaster recovery plan
- 2) _____ is the application of patches without shutting down and restarting the system or the program concerned.
 - A) Hot patching
 - B) Slipstreaming
 - C) Rebooting
 - D) Porting
- 3) The most common type of communication media used in local area network (LAN) technology is known as:
 - A) SONET
 - B) Token Ring
 - C) Ethernet
 - D) POE
- 4) What part of an HP LaserJet printer is malfunctioning if you receive a “50 Service” error?
 - A) Fuser
 - B) AC power supply
 - C) Toner cartridge
 - D) Laser scanner assembly
- 5) An overriding design rule for 10/100Mbps Ethernet networks is round-trip collision delay. What is the specification which this round-trip collision delay must **not** exceed?
 - A) 15 hops
 - B) 512 bit-times
 - C) 0.64 microseconds
 - D) 64 hops
- 6) Your network consisted of older BIND servers and peer-to-peer networking. You install several Microsoft domain controllers and configure your clients to join the new domain. You try to push out group policies, however, they are experiencing issues and the clients are booting very slowly. What is likely the problem?
 - A) Wrong rights and permissions
 - B) Pointing to older DNS servers
 - C) Older PC computers
 - D) Wrong IP addressing
- 7) Network _____ involves determining how to meet capacity requirements, and ensure reliability within the network.
 - A) research
 - B) testing
 - C) planning
 - D) realization
- 8) Which term describes hubs or switches that can be connected to each other in a telecommunications closet, but appear to be a single logical device?
 - A) multi-port
 - B) stackable
 - C) invisible
 - D) monitored
- 9) Which protocol is used by network monitoring tools to report faults to a network manager?
 - A) TFTP
 - B) SMTP
 - C) SNMP
 - D) FTP
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- 11) The Memory Buffer Register (MBR)
- A) Contains the address of the memory location that is to be read from or stored into.
 - B) Is a hardware memory device which denotes the location of the current instruction being executed.
 - C) Is a group of electrical circuits (hardware) that performs the intent of instructions fetched from memory.
 - D) Contains a copy of the designated memory location specified by the MAR after a "read" or the new contents of the memory prior to a "write"
- 12) Software that allows an administrator to clone a complete computer system to deploy to other computers of similar design is generically referred to as
- A) Configuration management software
 - B) Disk writer software
 - C) Image writer software
 - D) System duplicator software
- 13) The Memory Buffer Register (MBR)
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 - D) Is a group of electrical circuits (hardware) that performs the intent of instructions fetched from memory.
- 14) You install a newly purchased sound card into your computer, but upon rebooting you find that the new device is **not** recognized by the system. Moreover, your modem, which has always worked perfectly, has stopped functioning. What is probably the problem?
- A) The sound card is using the same IRQ as the modem.
 - B) The modem is 16-bit and sound card is 32-bit, meaning that they cannot both be used in the same system.
 - C) The drivers for the sound card need to be updated.
 - D) The sound card and modem are using the same slot on the motherboard.
- 15) A computer is experiencing random reboots and "phantom" problems that disappear after reboot. What should you do?
- A) Replace the power supply.
 - B) Replace the motherboard.
 - C) Open the cover and reseal all cards and chips.
 - D) Boot "clean."
- 16) What does it mean if a network administrator can ping a resource server using its IP address, but **not** its Internet name?
- A) The computer is not configured to use ARP
 - B) The computer is not configured to use DHCP
 - C) The computer is not configured to use DNS
 - D) The computer is not configured to use WINS
- 17) Which subnet mask will divide a class C network into two equal subnets?
- A) 255.255.255.128
 - B) 255.255.255.0
 - C) 255.255.255.255
 - D) 255.255.0.0
- 18) Which one of the following is **not** an IPv6 address type?
- A) unicast
 - B) broadcast
 - C) multicast
 - D) anycast
- 19) Microsoft's proprietary directory service built using LDAP, Kerberos, and DNS is known as _____ Directory.
- A) Lightweight
 - B) Domain
 - C) Replication
 - D) Active
- 20) The _____ license is the most widely used free software license, which guarantees end users (individuals, organizations, companies) the freedoms to use, study, share (copy), and modify the software. Software that ensures that these rights are retained is called free software.
- A) Creative Commons
 - B) GNU GPL
 - C) Proprietary
 - D) BSD

- 21) What phase of network design would you assess the project scope?
- A) plan
 - B) design
 - C) prepare
 - D) implementation
- 22) Which form of communications media has the highest bandwidth capacity and can cover the longest distance?
- A) 1000 Mbps UTP
 - B) single-mode fiber
 - C) backbone coax
 - D) multi-mode fiber
- 23) What standard is referenced for servers with redundant drive systems
- A) SATA
 - B) iSCSI
 - C) RAID
 - D) IDE
- 24) Software that allows one computer to run multiple, independent, operating systems on one physical server is called
- A) Clustering
 - B) Virtualization
 - C) Mastering
 - D) Simulating
- 25) Which of the following communications lines is best suited to interactive processing applications?
- A) Simplex lines
 - B) Mixed band channels
 - C) Narrow band channel
 - D) Full duplex lines
- 26) A model for computing where some computers request services and other computers respond to requests for services is called
- A) Host/response
 - B) Client/server
 - C) Request/Response
 - D) Thin Client
- 27) The most important component when designing a server is
- A) RAM
 - B) Optical mouse
 - C) Video card
 - D) Sound card
- 28) What stage of the maintenance cycle is most often overlooked by Administrators
- A) System upgrades
 - B) Reactive maintenance
 - C) Proactive maintenance
 - D) Documentation
- 29) What physical implementation requirement would deal with procurement of legal documents to complete the project?
- A) physical accessibility
 - B) permits or inspections
 - C) power supply
 - D) space requirements
- 30) In schools and hospitals it is recommended to use _____ rated cabling.
- A) Parabellum
 - B) Distance
 - C) Rotunda
 - D) Plenum

- 31) How might you be able to tell a slower running port on a switch simply by visual inspection?
- A) different color link light
 - B) the uplink port light is off
 - C) audible buzzer
 - D) the slow light is illuminated
- 32) Which Windows IPconfig switch can be used to flush and reset the contents of the DNS client resolver cache?
- A) /registerdns
 - B) /setclassid
 - C) /displaydns
 - D) /flushdns
- 33) Which of the following are NOT messages sent between client and server during the lease process?
- A) DHCPACK
 - B) DHCPOFFER
 - C) DHCPDISCOVER
 - D) DHCPINFORM
- 34) UTP network cable typically has what type of connectors at each end?
- A) RJ-45
 - B) AUI
 - C) BNC
 - D) RJ-11
- 35) What command will display the line, protocol, DLCI, and LMI information of an interface?
- A) Show run
 - B) Show interface
 - C) Show pvc
 - D) Show frame-relay pvc
- 36) What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?
- A) Host-to-Host
 - B) Application
 - C) Network Access
 - D) Intranet
- 37) Which of the following describe the DHCP Discover message?
- A) It uses FF:FF:FF:FF:FF:FF as a layer 2 broadcast and it uses UDP as the Transport layer protocol
 - B) It uses TCP as the Transport layer protocol and it does not use a layer 2 destination address
 - C) It uses FF:FF:FF:FF:FF:FF as a layer 2 broadcast
 - D) It does not use a layer 2 destination address
- 38) Which of the following allows a router to respond to an ARP request that is intended for a remote host?
- A) Reverse ARP (RARP)
 - B) Gateway DP
 - C) Proxy ARP
 - D) Inverse ARP (IARP)
- 39) Which of the following protocols uses both TCP and UDP?
- A) Telnet
 - B) DNS
 - C) SMTP
 - D) FTP
- 40) Two connected routers are configured with RIP routing. What will be the result when a router receives a routing update that contains a higher-cost path to a network already in its routing table?
- A) The update will be ignored and no further action will occur
 - B) The updated information will be added to the existing routing table
 - C) The updated information will replace the existing routing table entry
 - D) The existing routing table entry will be deleted from the routing table and all routers will exchange routing updates to reach convergence

- 41) What is route poisoning?
- A) It sends back the protocol received from a router as a poison pill, which stops the regular updates
 - B) It describes when a router sets the metric for a downed link to infinity
 - C) It is information received from a router that can't be sent back to the originating router
 - D) It prevents regular update messages from reinstating a route that has just come up
- 42) A switch has been configured for three different VLANs: VLAN2, VLAN3, and VLAN4. A router has been added to provide communication between the VLANs. What type of interface is necessary on the router if only one connection is to be made between the router and the switch?
- A) 1Gbps Ethernet
 - B) 100Mbps Ethernet
 - C) 56Kbps Serial
 - D) 10Mbps Ethernet
- 43) In Cisco's Unified Wireless Solution, what is the split-MAC architecture?
- A) The split-MAC architecture uses MAC addresses to create a forward/filter table and break up collision domains
 - B) The split-MAC architecture uses MAC addresses on the wireless network and IP addresses on the wired network
 - C) The split-MAC architecture allows the splitting of 802.11 protocol packets between the AP and the controller to allow processing by both devices
 - D) The split-MAC architecture uses MAC addresses to create a forward/filter table and break up broadcast domains
- 44) Users began to experience slow logins after administrators told users to save all files to the My Documents and Desktop locations, what is likely the problem?
- A) large roaming profiles
 - B) network overload
 - C) excessive bandwidth
 - D) large policy files
- 45) Frames from one LAN can be transmitted to another LAN via this device?
- A) Router
 - B) Bridge
 - C) Modem
 - D) Repeater
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 - B) Repeater
 - C) Modem
 - D) Bridge
- 47) The primary benefits a corporation receives from performing a software _____ are greater control and various forms of cost savings.
- A) order
 - B) licensing audit
 - C) update
 - D) replacement
- 48) What does a VLAN do?
- A) Provides multiple broadcast domains within a single collision domain
 - B) Acts as the fastest port to all servers
 - C) Breaks up broadcast domains in a layer 2 switch internetwork
 - D) Provides multiple collision domains on one switch port
- 49) What is the main reason the OSI model was created?
- A) To create a layered model larger than the DoD mode
 - B) So Cisco could use the model
 - C) So different networks could communicate
 - D) So application developers can change only one layer's protocols at a time
- 50) After you and your client have agreed upon the _____ of the prototype and the test suites to be carried out, it is time to write a plan that describes exactly how you will test them.
- A) software
 - B) age
 - C) hardware
 - D) scope

- 51) From a management perspective _____ gives users access to data repositories or grant authorization systems, networks applications, and databases based on a unique user identity.
- A) scaling
 - B) filtering
 - C) provisioning
 - D) initial discovery
- 52) _____ a tool to measure bandwidth and response times between two hosts using Internet Control Message Protocol (ICMP) echo request/echo reply mechanism.
- A) Ipconfig
 - B) Ip
 - C) Ifconfig
 - D) BWPing
- 53) _____ is an open source computer system monitoring, network monitoring and infrastructure monitoring software application that offers monitoring and alerting services for servers, switches, applications, and services.
- A) Yum
 - B) Apache
 - C) Orion
 - D) Nagios
- 54) It is recommended to create _____ for backups, virus prevention, and software distribution.
- A) Event logs
 - B) Documentation
 - C) System logs
 - D) Error logs
- 55) With Windows Disk quotas, you can set quota limits on individual users, or you can have limits apply equally to all non-administrative users. Unfortunately, you can't set limits on:
- A) individual accounts
 - B) hard drives directory
 - C) an RDP connection
 - D) groups of users
- 56) How to implement a network medium that is **not** susceptible to EMI. Which type of cabling should you use?
- A) Fiber-optic cable
 - B) Thicknet coax
 - C) Thinnet coax
 - D) Category 5 UTP cable
- 57) When data is encapsulated, which is the correct order?
- A) Segment, data, packet, frame, bit
 - B) Data, segment, packet, frame, bit
 - C) Data, segment, frame, packet, bit
 - D) Data, frame, packet, segment, bit
- 58) What is the maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask?
- A) 14
 - B) 30
 - C) 16
 - D) 15
- 59) What type of RJ45 UTP cable is used between switches?
- A) Crossover with a CSU/DSU
 - B) Crossover with a router in between the two switches
 - C) Crossover cable
 - D) Straight-through
- 60) Which WAN encapsulations can be configured on an asynchronous serial connection?
- A) ATM and SDLC
 - B) HDLC and SDLC
 - C) PPP and ATM
 - D) Frame Relay

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- 62) When securing system resources, the acronym UGP stands for:
- A) Users, Groups, Permissions
 - B) Users, Groups, Processes
 - C) Users, Global Groups, Process
 - D) Users, Global Groups, Principles
- 63) Which statement is true regarding the significance of the access control list wildcard mask 0.0.0.7?
- A) The first 29 bits of a given IP address will be ignored.
 - B) The first 29 bits of a given IP address will be checked.
 - C) The last 3 bits of a given IP address will be checked.
 - D) The first 32 bits of a given IP address will be checked.
- 64) A receiving host has failed to receive all of the segments that it should acknowledge. What can the host do to improve the reliability of this communication session?
- A) Restart the virtual circuit
 - B) Decrease the window size
 - C) Send a different source port number
 - D) Decrease the sequence number
- 65) Acknowledgments, sequencing, and flow control are characteristics of which OSI layer?
- A) Layer 7
 - B) Layer 4
 - C) Layer 3
 - D) Layer 2
- 66) If you have a very small network, _____ files may be preferred to DNS.
- A) HOSTA
 - B) LMHOSTS
 - C) HOSTS
 - D) NTLM
- 67) _____ is a tunneling protocol used to support virtual private networks (VPNs) or as part of the delivery of services by ISPs and does **not** provide encryption or confidentiality.
- A) PPTP
 - B) L2TP
 - C) SCCM
 - D) B2B
- 68) You have an interface on a router with the IP address of 192.168.192.10/29. Including the router interface, how many hosts can have IP addresses on the LAN attached to the router interface?
- A) 8
 - B) 30
 - C) 32
 - D) 6
- 69) On a VLSM network, which mask should you use on point-to-point WAN links in order to reduce the waste of IP addresses?
- A) /28
 - B) /30
 - C) /29
 - D) /27
- 70) When a new trunk link is configured on an IOS-based switch, which VLANs are allowed over the link?
- A) No VLAN's are allowed, you must configure each VLAN by hand
 - B) By default, all VLANs are allowed on the trunk
 - C) Only configured VLAN's are allowed on the link
 - D) Only extended VLAN's are allowed by default

- 71) You want to improve network performance by increasing the bandwidth available to hosts and limit the size of the broadcast domains. Which of the following options will achieve this goal?
- A) Bridges
 - B) Switches
 - C) Switches configured with VLANs
 - D) Managed Hubs
- 72) What does IOS stand for?
- A) An operating system used for mobile devices made by Apple
 - B) Investment Opportunity Set
 - C) Irish Over Seas
 - D) Institute of Oceanographic Sciences
- 73) Which of the following is **true** when describing a multicast address?
- A) Packets are delivered to all interfaces identified by the address. This is also called a one-to-many address
 - B) Identifies multiple interfaces and is only delivered to one address. This address can also be called one-to-one-of-many
 - C) These addresses are meant for nonrouting purposes, but they are almost globally unique so it is unlikely they will have an address overlap
 - D) Packets addressed to a unicast address are delivered to a single interface
- 74) Which of the following is **true** when describing a unicast address?
- A) These addresses are meant for nonrouting purposes, but they are almost globally unique so it is unlikely they will have an address overlap
 - B) These are your typical publicly routable addresses, just like a regular publicly routable address in IPv4
 - C) These are like private addresses in IPv4 in that they are not meant to be routed
 - D) Packets addressed to a unicast address are delivered to a single interface
- 75) Which of the following is **true** when describing a unique local address?
- A) Packets addressed to a unicast address are delivered to a single interface
 - B) These addresses are meant for nonrouting purposes, but they are almost globally unique so it is unlikely they will have an address overlap
 - C) These are your typical publicly routable addresses, just like a regular publicly routable address in IPv4
 - D) These are like private addresses in IPv4 in that they are not meant to be routed
- 76) _____ is a computer network technology that encapsulates Fibre Channel frames over Ethernet networks.
- A) Fibre Channel over Ethernet
 - B) HyperSCSI
 - C) iFCP
 - D) ATA over Ethernet
- 77) The _____ UPS offers only the most basic features, providing surge protection and battery backup.
- A) Line-interactive
 - B) Online/double-conversion
 - C) Modular
 - D) Offline/standby
- 78) _____ is a technology included in Microsoft Windows that allows taking manual or automatic backup copies or snapshots of data, even if it has a lock, on a specific volume at a specific point in time over regular intervals.
- A) System repair
 - B) Shadow copy
 - C) Backup and restore
 - D) Cron
- 79) The foundation of business _____ are the standards, program development, and supporting policies.
- A) continuity
 - B) policies
 - C) software
 - D) hardware
- 80) The primary purpose of a _____ is to recover data after its loss, be it by data deletion or corruption.
- A) backup
 - B) recovery policy
 - C) hard drive
 - D) floppy drive

- 81) If you want to create a schedule for backups, but need to run backups at different times on different days, you can use Task Scheduler and the _____ start backup command to run a series of tasks to create backups.
- A) Wbadmin
 - B) Xcif
 - C) Badmin
 - D) Tar
- 82) In relation to encryption, a "key" is a:
- A) string of random characters
 - B) pointer to a random number
 - C) index in an lookup table
 - D) metal object with notches and grooves
- 83) _____ systems are typically built around a client software program that runs on a schedule, typically once a day, and usually at night while computers aren't in use.
- A) Online backup
 - B) UPS
 - C) TAR
 - D) Zip
- 84) A _____ is a device intended to improve the quality of the power that is delivered to electrical load equipment.
- A) UPS
 - B) line conditioner
 - C) surge protector
 - D) battery backup
- 85) RAID is the acronym for:
- A) Reliable Arrangement for Inexpensive Disks
 - B) Relocatable Archive for Important Documents
 - C) Redundant Array of Independent Disks
 - D) Reconfigurable Allocation of Individual Disks
- 86) RAID level 5 is also called:
- A) Disk Striping with Parity
 - B) Disk Mirroring with Striping
 - C) Disk Striping for NAS
 - D) Disk Striping with Duplexing
- 87) In addition to providing security, a multihomed proxy server performs:
- A) Authentication
 - B) Encryption
 - C) NAT
 - D) Bridging
- 88) The type of groups that has a GUID attached to it so that you can use it to assign rights and permissions is called
- A) Distribution
 - B) Object
 - C) Permissions
 - D) Security
- 89) What RAID format is considered the best by most administrators because it does not require the operating system to handle most of the data striping and parity calculations?
- A) Software RAID
 - B) Super RAID
 - C) Master RAID
 - D) Hardware RAID
- 90) In a FDDI network, the purpose of the dual counter-rotating rings is to provide:
- A) electrical interference immunity
 - B) high reliability
 - C) high throughput
 - D) transmit receive balance

- 91) A _____ is a wireless access point that has either been installed on a secure company network without explicit authorization from a local network administrator.
- A) DNS server
 - B) Wi-Fi controller
 - C) rogue access point
 - D) DHCP server
- 92) A client connects to the _____ server, requesting some service, such as a file, connection, web page, or other resource available from a different server and the proxy server evaluates the request as a way to simplify and control its complexity.
- A) tunnel
 - B) VLAN
 - C) VPN
 - D) proxy
- 93) _____ is a type of access control defined by the Trusted Computer System Evaluation Criteria "as a means of restricting access to objects based on the identity of subjects and/or groups to which they belong.
- A) WAC
 - B) ACL
 - C) DAC
 - D) CACL
- 94) What protocol suite has made interconnecting network operating systems much easier?
- A) AppleTalk
 - B) IPX/SPX
 - C) TCP/IP
 - D) NetBEUI
- 95) What protocol suite has made interconnecting network operating systems much easier?
- A) IPX/SPX
 - B) TCP/IP
 - C) NetBEUI
 - D) AppleTalk
- 96) Transport layer protocols break data in to units known as what?
- A) Packets
 - B) Chips
 - C) Frames
 - D) Segments
- 97) What IEEE standard describes Ethernet?
- A) 802.3
 - B) 802.16
 - C) 802.11
 - D) 802.27
- 98) What type of software scans a network for open ports?
- A) Ripper
 - B) Cracker
 - C) Port scanner
 - D) Sniffer
- 99) What is the term for trying combinations of a user ID with every possible character combination until successful?
- A) Brute force
 - B) Phreaking
 - C) DDoS
 - D) Dictionary
- 100) What is the most common method for encrypting TCP/IP communications?
- A) HKEY
 - B) PGP
 - C) SSL
 - D) Kerberos

2016 SLC Network Design Key

1) C	34) A	68) D
2) A	35) B	69) B
3) C	36) A	70) B
4) C	37) A	71) C
5) B	38) C	72) A
6) B	39) B	73) A
7) D	40) A	74) D
8) B	41) B	75) B
9) C	42) B	76) A
10) C	43) C	77) D
11) D	44) A	78) B
12) A	45) B	79) A
13) C	46) D	80) A
14) A	47) B	81) A
15) C	48) C	82) A
16) C	49) C	83) A
17) A	50) D	84) B
18) B	51) C	85) C
19) D	52) D	86) A
20) B	53) D	87) C
21) C	54) B	88) D
22) B	55) D	89) D
23) C	56) A	90) B
24) B	57) B	91) C
25) D	58) B	92) D
26) B	59) C	93) C
27) A	60) C	94) C
28) D	61) C	95) B
29) B	62) A	96) D
30) D	63) B	97) A
31) A	64) B	98) C
32) D	65) B	99) A
33) D	66) C	100) C
	67) B	