

Indicate whether the sentence or statement is True or False. Mark “A” if the statement is True or “B” if it is False.				
1. The difference between serial and parallel communication is the number of communication channels.	a. True	b. False		
2. As a consultant making a recommendation for technology purchase for a company’s network needs, you should never have to talk to the CEO of the company or their representative.	a. True	b. False		
3. Apple Computer’s current operating system is based on BSD UNIX.	a. True	b. False		
4. On a UNIX computer, users are assigned to groups for the purposes of security.	a. True	b. False		
5. Protocols, such as wireless IEEE 802.11b, specify the means by which network devices communicate with each other.	a. True	b. False		
6. LDAP is a program that controls printing on networks by serving up print jobs.	a. True	b. False		
7. Linux is an open source operating system created by Linus Torvalds.	a. True	b. False		
8. Because a gateway is both a translator and a router, they tend to be slower than a bridge.	a. True	b. False		
9. FAT32 will support a maximum of two terabytes of data on a single volume.	a. True	b. False		
10. The most secure material for network cable construction is fiber-optic cable.	a. True	b. False		
11. A computer processor with the greater number of hertz (clock cycles) is always faster at results than a computer whose processor has fewer hertz.	a. True	b. False		
12. Network Address Translation is one method that is used to hide the IP addresses of devices on your network from the Internet.	a. True	b. False		
13. Although the small battery on every computer’s motherboard is called the CMOS battery, on today’s computers the sole purpose of the battery is to keep the clock time running.	a. True	b. False		
14. The bridge uses source route bridging to determine whether a packet should be forwarded or filtered.	a. True	b. False		
15. A complete analysis of a customer’s needs has to involve reviewing their people, their processes, and their technology.	a. True	b. False		
16. With Microsoft MPA, the XP operating system will run just 30 days without activation.	a. True	b. False		
Mark the best correct answer on your Scantron sheet for each of the following questions.				

17. What should the recommended first step be prior to applying any upgrades to a computer?	a. Apply (all) the upgrade(s), then reboot the computer.	b. Reboot the computer to refresh the operating system and assure normal operation prior to applying the upgrades.	c. Reboot the computer 20 times.	d. Call your computer vendor to make sure the upgrade really needs to be applied.
18. Which of the following statements is true?	a. USB 1.0 devices communicate at 22-30MB/sec	b. Firewire (IEEE 1394) devices communicate at 400MB/sec	c. USB 2.0 devices communicate at 200MB/sec	d. Firewire 800 devices communicate at 500MB/sec
19. What is the correct definition of a RADIUS server?	a. It provides authentication about the PPP connection for dial-up users and return parameters including the users IP address, gateway, and DNS server.	b. It computes the distance between your computer and some other server using GPS information.	c. It distributes information in a circular fashion around your network.	d. It sends anomalous information about your network to the outside world, "fooling" them into missing your true network information.
20. When attempting to help your customer determine the best network design for them, which of the following factors should be the most important of those listed?	a. Cost of the hardware	b. Cost of the implementation of the design	c. Amount and type of data traffic expected on the internal network	d. Number of workstations
21. The following file is used to store information mapping TCP and UDP ports to specific processes:	a. /etc/hosts.	b. /usr/bin/slpd.	c. /var/portmap.	d. /etc/services.
22. On very small networks, perhaps the simplest way to maintain information about hosts and addresses for the computers is	a. through the use of a hosts file.	b. through the use of DHCP.	c. through the use of DNS.	d. through the use of router host files.
23. A routing protocol which permits routers to exchange information with one another about the reachability of other networks and the cost or metric to reach the other networks is	a. OPFF.	b. OSPF.	c. OSSF.	d. RIPP.
24. Which of the following measures would not insure network security and integrity?	a. Hard coding router ports to specific MAC addresses for wireless access	b. Disabling the SSID broadcasting for wireless access points	c. Requiring some form of encryption for wireless access	d. Requiring no authentication for wireless connections to the network
25. The logical arrangement of data on a hard drive is based on five numerical values that include all of the following except	a. Heads.	b. Sectors.	c. Landing Zone.	d. Bit Position.
26. An IP header contains all of the following information except	a. IP source address.	b. IP destination address.	c. Checksum.	d. encryption type.
27. Which of these statements about Routing Information Protocol is true?	a. RIP routers maintain only the best route to a destination.	b. RIP routers maintain the best route and an alternate route to a destination.	c. RIP routers maintain complete tables about all possible paths to a destination.	d. RIP routers don't maintain route information; they query it on the fly.

28. Many hubs can be connected together to form a large network by connecting their uplink ports. However, this is inefficient for the following reason.	a. Hubs are less expensive when you buy bigger ones, so you should buy the biggest you can get and not chain them together.	b. Hubs do no processing of the information being passed.	c. Hubs are only intended to be used as stand-alone devices.	d. Hubs memorize the MAC address of every device connected.
29. All of the following ports are well-known UDP ports except	a. 7 echo.	b. 23 telnet.	c. 161 snmp.	d. 33434 tracerout
30. Good network design work incorporating best practices should include all of the following except	a. the hostname should tell where the machine is and, ideally, what it does.	b. the IP address should end with a zero.	c. updated network drawings exist and are changed with each physical change.	d. a central configuration repository database containing all elements of the infrastructure should contain every hub, router, computer, printer, etc.
31. An ISO and ITU standard that defines how global directories should be structured is known as	a. TDAP.	b. Active Directory.	c. X.500.	d. Oracle 9i.
32. As a consultant for the XYZco Company, you have been asked to provide hardware sizing requirements for a new database server. The relevant questions you will have to ask will likely include all of the following except the following question.	a. How much data is the database likely to hold at maximum?	b. How much memory does the database management system require?	c. How many users are likely to need to connect simultaneously?	d. What types of stored database procedures will be loaded?
33. Which of the following statements about a crossover cable is true?	a. You can use a crossover cable to connect a computer to a hub or switch.	b. Crossover cables are not designed to connect two hosts directly together.	c. Crossover cables are designed to connect two network management devices directly together when an uplink port is not available.	d. You can only use a crossover cable to connect two modems together.
34. A sniffer is used for what type of activity?	a. To locate bad NIC cards	b. To listen to network traffic	c. To bridge traffic from one network to another	d. To isolate faulty wiring
35. A VPN router is used to establish VPN sessions. A VPN session is a point-to-point connection using a technique called	a. privacy management.	b. PPPOE.	c. PPPTP.	d. tunneling.
36. Which of the following is not a part of the total cost of ownership of the network design changes that you are going to propose to your customer?	a. The cost of acquiring the hardware	b. The cost of installing the hardware	c. The cost of training the customer's staff to maintain the hardware	d. The cost of your training about the hardware
37. The seven layers of the OSI model include all of the following except	a. presentation.	b. Ethernet.	c. data link.	d. session.
38. The current customer you are designing a network for is a small law firm of four lawyers. Which of the following facts would you find least important when doing your needs analysis?	a. The lawyers all say they need to have complete security for their client records.	b. The lawyers' administrative assistant works from home one day a week.	c. The law office is located in a remodeled Victorian home within 1 mile of the local phone switch office.	d. The lawyers use a paper shredding company that picks up on the 15th.

39. You have been asked to set up a temporary computer network in a large open work area at your customer. Which of these questions would be least likely to help you determine what the best network design for this customer might be?	a. What types of computers are going to be networked?	b. How secure does the network need to be?	c. How much money are we looking to spend?	d. Do your computers have enough memory?
40. All of the following techniques for determining a network problem involve using native operating system commands except	a. examining the router configuration.	b. using ping.	c. using nslookup.	d. examining the contents of the hosts file.
41. David J. Bradley of IBM, invented control-alt-delete, the famous three-key sequence. The reason that control-alt-delete is important to computer operations is	a. to provide a way when Windows needs rebooting.	b. it is the one and only trusted way to reach ring zero.	c. because those keys are special keys on the keyboard.	d. elements of the operating system can be linked to those keys.
42. Which of the following measures is appropriate to take when administering computer networks?	a. Periodically review all accounts for the need to be active.	b. Allow zero-length passwords.	c. Set initial passwords to the account name.	d. Never require passwords to be changed.
43. A subnet that contains the IP address 192.168.1.100 with a subnet mask of 255.255.255.0 is which type of address?	a. Class A address	b. Class B address	c. Class C address	d. Class D address
44. One of the advantages of NAS is	a. Network Attached Storage is readily accessible from most platforms.	b. Network Automated Services keeps networks flowing smoothly.	c. Network Advisory System alerts you to possible problems on the network.	d. Network Advertisement of Services notifies client computers on the network of things like printing being available.
45. In examining a building location for your client to make a good network recommendation, the most important aspects of the building that you should examine do not include	a. the building's location.	b. the heating and cooling system vent locations.	c. the wall density and construction.	d. the vertical spaces in the building.
46. The ends of a bus network must be capped with	a. a terminator at each end.	b. a resistor at each end.	c. a modulator at each end.	d. a spanner at each end.
47. When you speak to this customer, he asks you to provide some information about your design recommendations. Which of the following statements should not be something that is true of your process?	a. Good network designers consider the cost/budget of the design.	b. Good network designers consider the future growth/needs of the network.	c. Good network designers always use the latest "hot" technologies.	d. Good network designers always talk to the users.
48. You have been asked to help a customer begin a project to implement their newly acquired software. The first, best question you can begin with in dealing with this customer should be:	a. What is the business problem we are trying to solve?	b. Where does the software get installed?	c. What kind of training do your people need?	d. When can we begin?
49. A single Microsoft Active Directory multiple domain environment is called a	a. bush.	b. field	c. tree.	d. forest.

50. The client you are working with this week to help re-design their network tells you at your first meeting that they want ATM to the desktop. Which of the following statements should be true about your reaction to this request?	a. You should determine the business need for this.	b. You should convince the client that wireless is the wave of the future and since they all clearly want to be at the latest and greatest technology.	c. You should ask the customer why they want to get money from their computers because the ATM in the lobby should be sufficient.	d. You should demonstrate to the customer your time-proven, award-winning design involving wireless and wired technologies that have been used at nearly all your customers—all of whom have been completely satisfied.
51. The correct theoretical maximum transmission rate for the IEEE 802.11g standard is	a. 1.544 MB/sec.	b. 11 MB/sec.	c. 54 MB/sec.	d. 1.55 GB/sec.
52. You have been asked, as the local intern, to set up a wireless network in the office of your team at this company that hired you by your boss. What concern should be foremost on your mind?	a. Whether or not the security and network teams know about this	b. How many people will want to be on the wireless network	c. Whether you should use 802.11b or 802.11g	d. Whether you should use 40 or 128-bit WEP encryption
53. The significance of the promises of IEEE 802.15, also known as Bluetooth, is	a. computers without networks.	b. computers without keyboards.	c. computers without processors.	d. computers without wires.
54. Chloe is the company's technical lead on the development team and you are interviewing her to help select new workstations for the technical team. About which aspect of the workstations is most important to ask her during her interview with you?	a. The look and feel of the case of the workstation	b. The needs of the team as far as CPU and memory	c. The type of networking the team will need	d. The type of security required
55. The MAC address of most computers comes from	a. assignment by your router.	b. assignment from the vendor of your NIC card.	c. assignment from the time stamp of when you first turn on your computer.	d. assignment by random numbers when you first turn on your computer.
56. Which of the following statements is not true about a software router?	a. A software router is inferior to a hardware router.	b. A software router can link two dissimilar network technologies.	c. A software router can be used to link two different subnets.	d. There is no such thing as a software router.
57. Kerberos is a network authentication protocol that involves all of the following components except	a. tickets.	b. principals.	c. retinal scanning.	d. passwords.
58. When interviewing the client, your partner Tanya asks the client if they currently have a firewall. The client tells her that they do not. Which of the following questions would be most relevant to determining if this was a problem?	a. Have you had any hackers break into any of your computers?	b. Do you always apply the latest patches and fixes for security problems?	c. Is your computer connected to the Internet?	d. Do you have any modems on your network?
59. In a Windows environment, the nbtstat command can tell you which of the following?	a. The user account logged on at a workstation	b. The status of your nbt's in the network	c. The health of your network bus terminal	d. The length of wire from your computer to the switch
60. When network cables exceed the length of specification the signal degrades. This is called	a. wire sapping.	b. attenuation.	c. dead-lining.	d. termination.

61. Which of the following considerations is typically not a part of the network design process?	a. Determine the number of potential users at a customer site.	b. Review the needs of the different types of users at a customer site.	c. Examine the configuration of computers of the users at a customer site.	d. Review the skills of the IT department to maintain your design.
62. If Windows 2000 is configured for DHCP use and no response is heard to its DHCP request broadcast, which of the following activities do not take place?	a. The computer assumes a default IP address.	b. The computer assumes a random IP address.	c. The computer broadcasts a message to determine if someone else already has its IP address.	d. The computer sets its subnet mask to 255.255.0.0.
63. Which of the following operating systems is most likely to become infected with a worm or virus?	a. Sun Solaris	b. Apple MacOS X	c. IBM AIX	d. Microsoft Windows
64. On most UNIX-based computers, password and account information is stored in which location?	a. In /etc/passwd	b. The password document a.k.a. /passwords	c. The computer information manager /usr/CIM	d. User manager /usr/mgr
65. SSH version 2 is a better choice for remote administration of a computer than telnet because	a. SSH version 2 is encrypted with unbreakable codes.	b. SSH version 2 doesn't let a user log on remotely.	c. SSH version 2 doesn't send the password in the clear.	d. SSH version 2 features remote registry editing.
66. As a part of your network design process, your supervisor Angela asks you to tell her the most critical factors that you uncovered from the customer that really define your design requirements. Which of the following facts from your interviews is one you should probably not be considering?	a. The customer works with large graphic files, typically 300-500 MB/file.	b. The customer site has a large storeroom that the customer has indicated can become the server room.	c. The customer has an existing token-ring network.	d. The customer has an outsourcing agreement with another company for IT services.
67. The part of an operating system that is compiled specifically for the type of processor in the computer is called the	a. nugget.	b. kernel.	c. bean.	d. soap.
68. PHP is a language that helps to link Web pages with	a. databases.	b. security protocols.	c. hardware.	d. privacy management.
69. In order to send Appletalk protocol traffic from one network segment to another, the following type of device must be used:	a. a brouter.	b. a hub.	c. a printer.	d. a router.
70. Some of the business processes that you will likely have to deal with at a customer doing a network design change would include all of the following except	a. the Help Desk.	b. change management.	c. configuration management.	d. network.
71. CGI is a language that is used for	a. common ground interfacing with electronic equipment.	b. modem carrier-sensing.	c. scripting.	d. reading hardware registry values.
72. A router operates at which layer of the OSI Model?	a. Network	b. Presentation	c. Session	d. Data Link
73. Which of the following statements about hubs are not true?	a. Hubs distribute all of the data they receive to all the network devices they are connected to.	b. This is a highly inefficient use of your network bandwidth.	c. There is no processing delay created by the hub.	d. Hubs distribute the data they receive to the intended network device.

74. CIM or Common Implementation Methodology is a standard developed by the DMTF for the purpose of	a. providing a common means to query a system for operating system and application values.	b. providing a means to run java applications on any interpreter.	c. providing memory-resident routines to shorten programming time.	d. providing security to operating systems.
75. Only one of following ports is correct. Which one is it?	a. FTP uses port 99	b. SSH uses port 80	c. HTTP uses port 22	d. TFTP uses port 69
76. Chang has been asked to assist you with determining the best network design for the customer. When you meet Chang, he gives you a design for this purpose. What is the most significant problem you should have with the design?	a. You did not design it.	b. The problems of the customer have not yet been discussed.	c. Chang used token ring and you hate token ring.	d. The number of network ports is five fewer than the number people you think work there.
77. The customer you are currently working with has the following stated need: more capacity, low-cost, and reliable file server with emphasis on low-cost. In fact, he repeated low-cost about 5 times in his conversation with you. Which of the following alternatives should be least likely to be presented to the customer?	a. A plan for the purchase of a new moderately-priced Windows 2000 server.	b. A plan to re-use some existing Pentium III server with an install of Linux to reduce cost of ownership.	c. A plan to insert a large drive into his workstation with configuration to share the drive with his users.	d. A plan to increase the disk capacity of an existing server.
78. In order to disable services on a UNIX machine, which of the following would be done?	a. Edit the inetd.conf file	b. Edit the /etc/services file	c. Edit the /program files/startup items file	d. Edit the runme file
79. The process of reviewing the contents of a computer looking for standardization or making a computer standard is a part of which business process?	a. Help Desk	b. Configuration Management	c. Problem Management	d. Change Management
80. On a Windows 2000 Server, which step will turn the server into a domain controller?	a. Use the computer management MMC to press the domain controller button.	b. Use the domain controller program to check the box for domain controller.	c. Run the dcpromo.exe program.	d. You cannot convert a server into a domain controller.
81. Active Directory uses the following method to replicate changes from one domain controller to another	a. FRS.	b. MRS.	c. ACT.	d. MRSFRS.
82. When many hosts on the Internet begin contacting your company's server to the extent that normal traffic is not able reach the server, this constitutes	a. ping wars.	b. DOS attacks.	c. worms.	d. viruses.
83. Which of the following technologies is not a technology that is directly related to the network sharing of files and directories?	a. Samba	b. NFS	c. CDFS	d. NTFS
84. The network utility nslookup is used to	a. find phone numbers for network computers.	b. resolve network addresses by consulting DNS.	c. locate routers on the network by consulting routing tables.	d. locate e-mail addresses for server administrators.
85. What command produced the following output? Interface: 192.168.1.102 --- 0x4 Internet Address Physical Address Type 192.168.1.1 00-06-25-b5-0a-db dynamic	a. arp	b. ping	c. nslookup	d. nbtstat
86. The criminal use of technology on a public server such as at a copy shop, collecting sensitive information such as passwords, credit card numbers, social security numbers, etc. constitutes an example of	a. a Trojan Horse.	b. a virus.	c. Spyware.	d. a worm.

87. The technology piloted by Apple, Epson, and several printer manufacturers for the purpose of simplifying configuration demands is	a. iChat.	b. iTunes.	c. Appletalk.	d. Rendezvous.
Questions 88-92 The Hamlet Corporation, a major pork producer, has hired you to construct the network for their new home office being built in Sioux City, Iowa. The meetings so far have resulted in the following requirements: <ul style="list-style-type: none"> • 3 floors with separate subnets, connected • a single Internet connection to be shared • dedicated e-mail, Web, and file and print servers • remote access capability • wireless networking available throughout the building 				
88. In order to manage the wireless network, you have elected to use WEP encryption. What does this mean?	a. You will have to provide an encryption key to each wireless user.	b. You will have to put a physical key in each NIC card.	c. You will have to get the encryption key generated by each wireless user and add them to the wireless server.	d. You will have to send a different encryption key for each individual area of the building.
89. In order to connect the three floors, which of the following alternatives would be best?	a. Put a wireless amplifier on the access point and let the other floors all be wireless from the first floor.	b. Install a vertical drop in the building of fiber, running to a router on each floor.	c. Put a giant wireless access point on the roof and let it filter down into the building	d. Have everyone dial into a modem bank to connect to the network.
90. In order to not have to purchase more than a few IP addresses for your company, you decide to implement a class C subnet for your intranet. Which of the following statements must also be true?	a. You should use NAT to manage the need to have the other computers communicate with the Internet.	b. You should use NUT to manage the need to have the other computers communicate with the Internet.	c. You should NOT manage the need to have the other computers communicate with the Internet.	d. You should not allow the other computers to communicate with the Internet.
91. In order to protect your client's Web server, e-mail server, and file and print servers, you elect to draw up a network design that places them well out of harm's way. What might your approach entail?	a. The creation of a DMZ with two different firewalls outside the internal network to protect the external Web server	b. The use of an I.D.S. to block the network's access to the Internet	c. The creation of a DMZ with two different firewalls around the external Web server – one of them faces the Internet and one facing the internal network	d. A normal firewall blocking the Internet's traffic coming into the internal network would be sufficient.
92. In order to provide remote access capability, you elect to implement a VPN server. The authentication for the VPN server could easily be managed by using	a. the company's LDAP server.	b. a pair of administrators, properly trained, connecting the access requests.	c. secret passwords, changed daily.	d. a modem handshake.
93. Which of the following choices correctly states the relationship between the command and operating system?	a. On a Windows 2000 machine, winipcfg gives out network information.	b. On a UNIX system, ifconfig gives out network information.	c. On MacOS X, ipconfig /all gives out network information.	d. On a Windows XP machine, ipconfigure /all gives out network information.

94. The method by which Bluetooth devices authenticate each other can take the form of	a. typing a passcode on each device that matches the other device's entry.	b. installing a chip from Bluetooth.com that you have to special order.	c. physically connecting the devices to allow them to exchange names and addresses.	d. putting the devices within range of each other and turning them off and on.
95. Which of the following network troubleshooting statements is accurate?	a. A response to a PING always means the machine is alive and well.	b. If a TRACEROUTE fails to reach the other node, it is likely the machine cannot be reached.	c. Using the NSLOOKUP command gives you valuable information about the ports available.	d. Using the MACME command gives your MAC address.
96. Which of the following statements are true about TCP/IP?	a. TCP takes care of handling the actual delivery of the data.	b. TCP takes care of keeping track of the individual units of data that a message is divided into.	c. IP takes care of keeping track of the individual units of data that a message is divided into.	d. IP forms an invisible barrier around the data that protects it from being compromised on the Internet.
97. Which of the following are not true about the Presentation Layer of the OSI Model?	a. Translates from application to network format and vice-versa	b. All different formats from all sources are made into a common uniform format that the rest of the OSI model can understand.	c. Responsible for protocol conversion, character conversion, data encryption / decryption, expanding graphics commands, data compression	d. Exists below the Session Layer
98. Kenesha is the new liaison between your company and her company (for whom you are consulting.) As such, you expect that she will help you find answers to all your unanswered questions. If you had to prioritize these questions in order to get started on your network design project as quickly as possible, which one would have to come first?	a. What kind of cable should we use?	b. What are the requirements for the network?	c. How many wireless hubs will we need?	d. How fast is the Internet connection?

NETWORK DESIGN

No.	Answer	No.	Answer	No.	Answer	No.	Answer
1.	A	26.	D	51.	C	76.	B
2.	B	27.	A	52.	A	77.	C
3.	A	28.	B	53.	D	78.	A
4.	A	29.	B	54.	B	79.	B
5.	A	30.	B	55.	B	80.	C
6.	B	31.	C	56.	D	81.	A
7.	A	32.	D	57.	C	82.	B
8.	A	33.	C	58.	C	83.	C
9.	A	34.	B	59.	A	84.	B
10.	A	35.	D	60.	B	85.	A
11.	B	36.	D	61.	D	86.	C
12.	A	37.	B	62.	A	87.	D
13.	b	38.	D	63.	D	88.	A
14.	B	39.	D	64.	A	89.	B
15.	A	40.	A	65.	C	90.	A
16.	A	41.	B	66.	C	91.	C
17.	B	42.	A	67.	B	92.	A
18.	B	43.	C	68.	A	93.	B
19.	A	44.	A	69.	A	94.	A
20.	C	45.	B	70.	D	95.	B
21.	D	46.	A	71.	C	96.	B
22.	A	47.	C	72.	A	97.	D
23.	B	48.	A	73.	D	98.	B
24.	D	49.	D	74.	a	99.	
25.	d	50.	A	75.	D	100.	