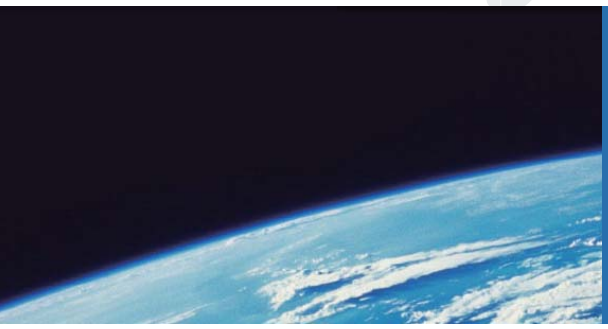

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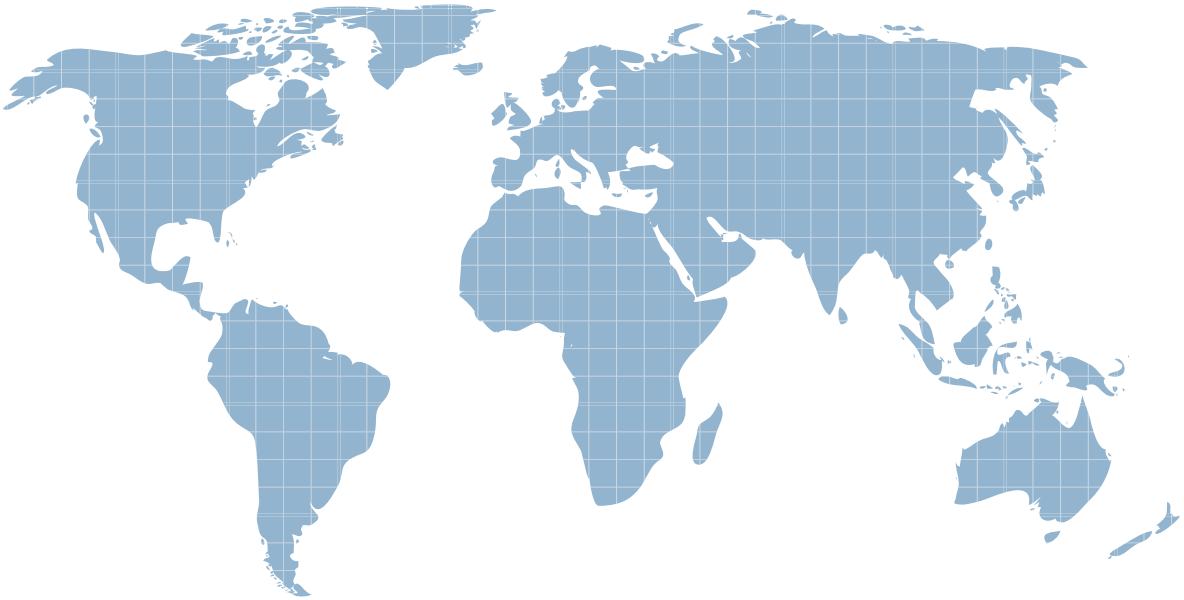

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Exam : **IC3-3**

Title : Internet and Computing Core Certification

Version : Demo

1.Mark works as a Network Administrator for Company Inc. The company has a Windows-based network. The California branch of Company has been divided into two buildings in the same campus. The company wants to interconnect these two buildings for proper communication among all the departments.
Which of the following network types should Mark use to accomplish the task?
A. MAN
B. WAN
C. LAN
D. CAN
Answer: D
Explanation:
A campus area network (CAN) is a computer network that interconnects local area networks throughout a limited geographical area, such as a university campus, a corporate campus, or a military base. It could be considered a metropolitan area network that is specific to a campus setting. A campus area network is, therefore, larger than a local area network but smaller than a wide area network. The term is sometimes used to refer to university campuses, while the term corporate area network is used to refer to corporate campuses instead. Although not considered a wide area network, a CAN extends the reach of each local area network within the campus area of an organization. In a CAN, the buildings of a university or corporate campus are interconnected using the same types of hardware and networking technologies that one would use in a LAN. In addition, all of the components, including switches, routers, and cabling, as well as wireless connection points, are owned and maintained by the organization.
Answer option C is incorrect. Local Area Network (LAN) represents a network that covers a very close geographic area, such as a floor of a building, a building itself, or a campus environment. LAN is a high-speed network that connects computers, printers, and other network devices together. The media types used in LANs include Ethernet, Fast Ethernet (FE), Gigabit Ethernet (GE), Token Ring, and FDDI. A LAN may include servers, workstations, hubs, bridges, switches, routers, gateways, firewalls, etc.
Answer option A is incorrect. A Metropolitan Area Network (MAN) is a network that interconnects users with computer resources in a geographic area or region larger than that covered by even a large Local Area Network (LAN) but smaller than the area covered by a Wide Area Network (WAN). The term is applied to the interconnection of networks in a city into a single larger network (which may then also offer efficient connection to a wide area network). It is also used to mean the interconnection of several local area networks by bridging them with backbone lines. The latter usage is also sometimes referred to as a campus network. A MAN usually interconnects a number of local area networks (LANs) using a high-capacity backbone technology, such as fiber-optical links, and provides up-link services to wide area networks and the Internet. Examples of metropolitan area networks of various sizes can be found in the metropolitan areas of London, England; Lodz, Poland; and Geneva, Switzerland. Large universities also sometimes use the term to describe their networks. A recent trend is the installation of wireless MANs.
Answer option B is incorrect. A wide area network (WAN) is a geographically dispersed telecommunications network. The term distinguishes a broader telecommunication structure from a local area network (LAN). A wide area network may be privately owned or rented, but the term usually connotes the inclusion of public (shared user) networks. An intermediate form of network in terms of geography is a metropolitan area network (MAN). A wide area network is also defined as a network of networks, as it interconnects LANs over a wide geographical area.

2.Which of the following organizations offers technical assistance to the developing countries in the field

of telecommunications and regulates international radio and telecommunications?
A. ISO
B. ANSI
C. ITU-T
D. IEEE
E. W3C
Answer: C
Explanation:
The International Telecommunication Union (ITU) is an organization established to standardize and regulate international radio and telecommunications. Its main tasks include standardization, allocation of the radio spectrum, and organizing interconnection arrangements between different countries to allow international phone calls. ITU sets standards for global telecom networks. The ITU's telecommunications division (ITU-T) produces more than 200 standard recommendations each year in the converging areas of telecommunications, information technology, consumer electronics, broadcasting and multimedia communications.
ITU was streamlined into the following three sectors:
ITU-D (Telecommunication Development)
ITU-R (Radio communication)
ITU-T (Telecommunication Standardization)
Answer option B is incorrect. ANSI (American National Standards Institute) is the primary organization for fostering the development of technology standards in the United States. ANSI works with industry groups and is the U.S. member of the International Organization for Standardization (ISO) and the International Electro-technical Commission (IEC). Long-established computer standards from ANSI include the American Standard Code for Information Interchange (ASCII) and the Small Computer System Interface (SCSI).
Answer option D is incorrect. The Institute of Electrical and Electronic Engineers (IEEE) is a society of technical professionals. It promotes the development and application of electro-technology and allied sciences. IEEE develops communications and network standards, among other activities. The organization publishes number of journals, has many local chapters, and societies in specialized areas.
Answer option A is incorrect. The International Organization for Standardization, widely known as ISO, is an international-standard-setting body composed of representatives from various national standards organizations. Founded on 23 February 1947, the organization promulgates worldwide proprietary industrial and commercial standards. It has its headquarters in Geneva, Switzerland. While ISO defines itself as a non-governmental organization, its ability to set standards that often become law, either through treaties or national standards, makes it more powerful than most non-governmental organizations. In practice, ISO acts as a consortium with strong links to governments.
Answer option E is incorrect. The World Wide Web Consortium (W3C) is an international industry consortium that develops common standards for the World Wide Web to promote its evolution and interoperability. It was founded in October 1994 by Tim Berners-Lee, the inventor of the Web, at the Massachusetts Institute of Technology, Laboratory for Computer Science [MIT/LCS] in collaboration with CERN, where the Web had originated, with support from DARPA and the European Commission.

3 .Which of the following is used to publish frequently updated works such as blog entries, news headlines, audio, and video on the Web sites?

A. Podcast
B. ActiveX
C. RSS
D. Digital certificate

Answer: C
Explanation:
RSS (most commonly translated as "Really Simple Syndication" but sometimes "Rich Site Summary") is a family of Web feed formats used to publish frequently updated works such as blog entries, news headlines, audio, and video in a standardized format. An RSS document (which is called a "feed", "Web feed", or "channel") includes full or summarized text, plus metadata such as publishing dates and authorship. Web feeds benefit publishers by letting them syndicate content automatically. They benefit readers who want to subscribe to timely updates from favored Web sites or to aggregate feeds from many sites into one place. RSS feeds can be read using software called an "RSS reader", "feed reader", or "aggregator", which can be Web-based, desktop-based, or mobile-device-based. A standardized XML file format allows the information to be published once and viewed by many different programs. The user subscribes to a feed by entering into the reader the feed's URI - often referred to informally as a "URL" (Uniform Resource Locator), although technically the two terms are not exactly synonymous - or by clicking an RSS icon in a browser that initiates the subscription process. The RSS reader checks the user's subscribed feeds regularly for new work, downloads any updates that it finds, and provides a user interface to monitor and read the feeds.
Answer option A is incorrect. A podcast (or netcast) is a series of digital media files (either audio or video) that are released episodically and often downloaded through web syndication. The mode of delivery differentiates podcasting from other means of accessing media files over the Internet, such as direct download, or streamed webcasting.
Answer option B is incorrect. ActiveX is a framework for defining reusable software components that perform a particular function or a set of functions in Microsoft Windows in a way that is independent of the programming language used to implement them. A software application can then be composed from one or more of these components in order to provide its functionality. Many Microsoft Windows applications - including many of those from Microsoft itself, such as Internet Explorer, Microsoft Office, Microsoft Visual Studio, and Windows Media Player use ActiveX controls to build their feature-set and also encapsulate their own functionality as ActiveX controls which can then be embedded into other applications. Internet Explorer also allows embedding ActiveX controls onto web pages.
Answer option D is incorrect. A digital certificate is an electronic 'credit card' that establishes an individual's credentials when doing business or other transactions on the Web. It is issued by a certification authority (CA). It contains the name, a serial number, expiration dates, a copy of the certificate holder's public key (used for encrypting messages and digital signatures), and the digital signature of the certificate-issuing authority so that a recipient can verify that the certificate is real. Some digital certificates conform to a standard, X.509. Digital certificates can be kept in registries so that authenticating users can look up other users' public keys.

4.You work as a Security Administrator for Net Perfect Inc. The company has a Windows-based network. The employees use Internet Explorer for Internet surfing. You want to block access to the vulnerable sites from the internal network of the company. To accomplish the task, you need to configure some security

settings for Internet Explorer.
Which of the following features of Internet Explorer do you need to configure?
A. Pop-up blocker
B. InPrivate Browsing
C. Content Advisor
D. Internet Explorer Compatibility Evaluator
Answer: C
Explanation:
Content Advisor is a feature of Internet Explorer that allows an administrator to control the Internet contents that can be viewed on a single computer. Before configuring the Content Advisor, it needs to be enabled. When it is enabled, Internet Explorer first checks whether the website meets the specified criteria or not. A user can adjust the content rating settings to reflect the appropriate level of content in the areas of language, sex, nudity, and violence. He can also create a list of websites that are always viewable or never viewable regardless of the contents.
Answer option D is incorrect. The Internet Explorer Compatibility Evaluator (IECE) allows a user to determine whether a Web site or Web application will run properly in a new version of Internet Explorer such as Windows Internet Explorer 7. IECE works by enabling compatibility logging in Internet Explorer, parsing logged issues, and creating a log file for uploading to the ACT Log Processing Service. A user can view the compatibility issues located by IECE as a report with the help of the Application Compatibility Manager.
Answer option B is incorrect. InPrivate Browsing is a feature of Internet Explorer 8. When this feature is active, Internet Explorer does not store history, cookies, temporary Internet files, or other data, thus protecting privacy of the user while using Internet Explorer 8. InPrivate Browsing can be activated by pressing Ctrl+Shift+P. This feature is quite helpful when a user does not want to leave any trace of his Web browsing activity such as, e-mailing at an Internet cafe or shopping for a gift.
Answer option A is incorrect. Pop-up blocker is a feature of Internet Explorer (IE) 7+. It enables users to block most pop-ups while they are surfing the Internet on their computers. Users can choose the level of blocking. They can either block all pop-up windows or allow pop-ups they want to see. By default, the pop-up blocker is enabled in IE 7+. While the pop-up blocker is enabled, a user can see the blocked pop-ups by clicking the IE 7+ information bar.

5.Which of the following devices is used to convert digital signals to analog signals for transmission across a network?
A. Gateway
B. Brouter
C. Firewall
D. Modem
Answer: D
Explanation:
Modem stands for Modulator-Demodulator. It is a device that enables a computer to transmit information over standard telephone lines. Since a computer stores information digitally and a telephone line is analog, a modem converts digital signals to analog and vice-versa. The conversion of a digital signal to an analog signal is known as modulation and that of an analog signal to a digital signal is known as demodulation.

Answer option A is incorrect. A gateway is a network point that acts as an entrance to another network. On the Internet, a node or stopping point can be either a gateway node or a host (end-point) node. Both the computers of Internet users and the computers that serve pages to users are host nodes. The computers that control traffic within a company's network or at a local Internet service provider (ISP) are gateway nodes. In the network for an enterprise, a computer server acting as a gateway node is often also acting as a proxy server and a firewall server. A gateway is often associated with both a router, which knows where to direct a given packet of data that arrives at the gateway, and a switch, which furnishes the actual path in and out of the gateway for a given packet.
Answer option B is incorrect. A brouter is a network bridge and a router combined in a single product. A bridge is a device that connects one local area network (LAN) to another local area network that uses the same protocol (for example, Ethernet or Token Ring). If a data unit on one LAN is intended for a destination on an interconnected LAN, the bridge forwards the data unit to that LAN; otherwise, it passes it along on the same LAN. A bridge usually offers only one path to a given interconnected LAN. A router connects a network to one or more other networks that are usually part of a wide area network (WAN) and may offer a number of paths out to destinations on those networks. A router therefore needs to have more information than a bridge about the interconnected networks. It consults a routing table for this information. Since a given outgoing data unit or packet from a computer may be intended for an address on the local network, on an interconnected LAN, or the wide area network, it makes sense to have a single unit that examines all data units and forwards them appropriately.
Answer option C is incorrect. A firewall is a tool to provide security to a network. It is used to protect an internal network or intranet against unauthorized access from the Internet or other outside networks. It restricts inbound and outbound access and can analyze all traffic between an internal network and the Internet. Users can configure a firewall to pass or block packets from specific IP addresses and ports.
An administrator can configure the following settings for a firewall:
Open and Closed Ports: Through this setting firewall determines which data packet to be allowed or drop during communication.
Program Filters: Through program filters, firewall determines which program to be allowed or disallow for communication. A firewall can be a standalone system, a software application, or a hardware device that blocks/permits traffic. It can also be used to secure the network from malicious activities.

6.John works as a Sales Manager for BlueWells Inc. The company has a Windows-based network. John often travels away from the office. He wants to connect his Laptop to the office's local network.
Which of the following mechanisms will he use to connect to the office's local network?
A. Virtual Private Network (VPN)
B. Personal Area Network (PAN)
C. Intranet
D. Extranet
Answer: A
Explanation:
A virtual private network (VPN) is a form of wide area network (WAN) that supplies network connectivity over a possibly long physical distance. A virtual private network is a network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organization's network. A virtual private network can be contrasted with an expensive system of owned or leased lines that can only be used by one organization. The goal of a VPN

is to provide the organization with the same capabilities, but at a much lower cost.A VPN works by using the shared public infrastructure while maintaining privacy through security procedures and tunneling protocols such as the Layer Two Tunneling Protocol (L2TP). In effect, the protocols, by encrypting data at the sending end and decrypting it at the receiving end, send the data through a tunnel that cannot be entered by data that is not properly encrypted. An additional level of security involves encrypting not only the data, but also the originating and receiving network addresses.
Answer option C is incorrect. An intranet is a private network that is contained within an enterprise. Intranet is used to share company information and computing resources among employees. It is also used to facilitate working in groups and for teleconferencing. An intranet uses TCP/IP, HTTP, and other Internet protocols.
Answer option D is incorrect. Extranet is an area of a Web site, which is available only to selected customers, suppliers, and mobile workers. It allows users limited access to a company's intranet. Extranet can also be considered as an extension of a corporate intranet using the World Wide Web technology to facilitate communication with a corporation's suppliers and customers.
Answer option B is incorrect. A personal area network (PAN) is a computer network used for communication among computer devices (including telephones and personal digital assistants) close to one's person. The reach of a PAN is typically a few meters. A PAN can be used for communication among the personal devices themselves (intrapersonal communication), or for connecting to a higher level network and the Internet.

7.Which of the following techniques allows multiple computers to share one or more IP addresses?
A. NAT
B. WINS
C. DHCP
D. DNS
Answer: A
Explanation:
Network address translation (NAT) is a technique that allows multiple computers to share one or more IP addresses. It is configured at a server between a private network and the Internet. It allows the computers in the private network to share a global, ISP assigned address. It modifies the headers of packets traversing the server. For the packets outbound to the Internet, it translates the source addresses from private to public, whereas for the packets inbound from the Internet, it translates the destination addresses from public to private.
Answer option D is incorrect. Domain Name System (DNS) is a hierarchical naming system for computers, services, and resources connected to the Internet or a private network. It is used to translate domain names meaningful to humans into the numerical (binary) identifiers associated with networking equipment for the purpose of locating and addressing these devices worldwide. In other words, the Domain Name System is a system that serves as the "phone book" for the Internet by translating human-friendly computer hostnames into IP addresses.
Answer option C is incorrect. DHCP stands for Dynamic Host Configuration Protocol. It is a computer networking protocol that lets network administrators centrally manage and automate the assignment of Internet Protocol (IP) addresses in an organization's network. Using the Internet Protocol, each machine that can connect to the Internet needs a unique IP address, which is assigned when an Internet connection is created for a specific computer. Without DHCP, the IP address must be entered manually at

each computer in an organization and a new IP address must be entered each time a computer moves to a new location on the network. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network. DHCP uses the concept of a 'lease' or amount of time that a given IP address will be valid for a computer. The lease time can vary depending on how long a user is likely to require the Internet connection at a particular location. It is especially useful in education and other environments where users change frequently. Using very short leases, DHCP can dynamically reconfigure networks in which there are more computers than there are available IP addresses. The protocol also supports static addresses for computers that need a permanent IP address, such as Web servers.
Answer option B is incorrect. WINS stands for Windows Internet Naming Service. It is a part of the Microsoft Windows NT and 2000 Servers and it is used to manage the association of workstation names and locations with Internet Protocol addresses (IP addresses) without the user or an administrator having to be involved in each configuration change. WINS automatically creates a computer name-IP address mapping entry in a table, ensuring that the name is unique and not a duplicate of someone else's computer name. When a computer is moved to another geographic location, the subnet part of the IP address is likely to change. Using WINS, the new subnet information will be updated automatically in the WINS table. WINS complements the NT Server's Dynamic Host Configuration Protocol (DHCP), which negotiates an IP address for any computer (such as workstation) when it is first defined to the network. If a computer user on a network is connected to a Windows NT/2000 server, he may find WINS mentioned in some of the network-related programs or system messages.

8.Which Web browser comes with the Windows operating system? Each correct answer represents a complete solution. Choose all that apply.
A. Internet Explorer
B. Firefox
C. Opera
D. Safari
E. Lynx
Answer: A
Explanation:
Internet Explorer is the Web browser that comes with the Windows operating system.
Answer options E, B, D, and C are incorrect. Lynx, Firefox, Safari, and Opera do not have the Windows operating system.

9.Which of the following is referred to as a network in which network nodes request and receive services and data from another networked node?
A. Client-server
B. PAN
C. LAN
D. CAN
Answer: A
Explanation:
Client-server networking is also known as client-server computing. It is a distributed application

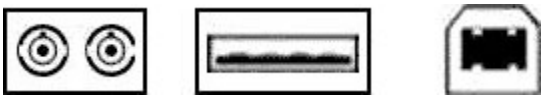
architecture that partitions tasks or work loads between service providers (servers) and service requesters, called clients. Often clients and servers operate over a computer network on separate hardware. A server machine is a high-performance host that is running one or more server programs which share its resources with clients. A client does not share any of its resources, but requests a server's content or service function. Clients therefore initiate communication sessions with servers which await (listen to) incoming requests.

Answer option C is incorrect. Local Area Network (LAN) represents a network that covers a very close geographic area, such as a floor of a building, a building itself, or a campus environment. LAN is a high-speed network that connects computers, printers, and other network devices together. The media types used in LANs include Ethernet, Fast Ethernet (FE), Gigabit Ethernet (GE), Token Ring, and FDDI. A LAN may include servers, workstations, hubs, bridges, switches, routers, gateways, firewalls, etc.

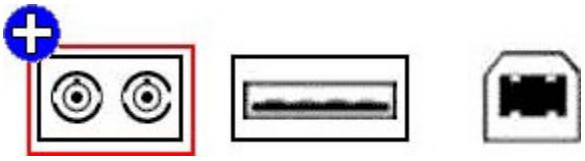
Answer option D is incorrect. A campus area network (CAN) is a computer network that interconnects local area networks throughout a limited geographical area, such as a university campus, a corporate campus, or a military base. It could be considered a metropolitan area network that is specific to a campus setting. A campus area network is, therefore, larger than a local area network but smaller than a wide area network. The term is sometimes used to refer to university campuses, while the term corporate area network is used to refer to corporate campuses instead. Although not considered a wide area network, a CAN extends the reach of each local area network within the campus area of an organization. In a CAN, the buildings of a university or corporate campus are interconnected using the same types of hardware and networking technologies that one would use in a LAN. In addition, all of the components, including switches, routers, and cabling, as well as wireless connection points, are owned and maintained by the organization.

Answer option B is incorrect. A personal area network (PAN) is a computer network used for communication among computer devices (including telephones and personal digital assistants) close to one's person. The reach of a PAN is typically a few meters. A PAN can be used for communication among the personal devices themselves (intrapersonal communication), or for connecting to a higher level network and the Internet.

10.Mark the ST connector in the image given below.



Answer:

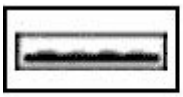


Explanation:

The image displays the following connectors: ST: A straight tip (ST) connector is a fiber-optic connector used with multimode fiber. An ST connector has a 2.5mm shaft and bayonet locking ring, and allows quick connect and disconnect of 125 micron multi-mode fiber.

ST

USB: A Universal Serial Bus (USB) connector is used with the USB cable for connecting various electronic devices to a computer. USB supports a data speed of up to 12 megabits per second. Two types of connectors are used with USB, namely USB-A Type and USB-B Type.



11.In which of the following DoS attacks does an attacker send an ICMP packet larger than 65,536 bytes to the target system?
A. Ping of death
B. Fraggle
C. Jolt
D. Teardrop
Answer: A
Explanation:
In the ping of death attack, the attacker sends an ICMP packet larger than 65,536 bytes. Since the operating system does not know how to handle a packet larger than 65,536 bytes, it either freezes or crashes at the time of reassembling the packet. Now-a-days, operating systems discard such packets, so the ping of death attack is not applicable at the present time.
Answer option C is incorrect. In the jolt DoS attack, an attacker fragments the ICMP packet in such a manner that the target computer cannot reassemble it. In this situation, the CPU utilization of the target system becomes 100 percent and the target system gets crashed.
Answer option D is incorrect. In a teardrop attack, a series of data packets are sent to the target system with overlapping offset field values. As a result, the target system is unable to reassemble these packets and is forced to crash, hang, or reboot.
Answer option B is incorrect. In a fraggle DoS attack, an attacker sends a large amount of UDP echo request traffic to the IP broadcast addresses. These UDP requests have a spoofed source address of the intended victim. If the routing device delivering traffic to those broadcast addresses delivers the IP broadcast to all the hosts, most of the IP addresses send an ECHO reply message. However, on a multi-access broadcast network, hundreds of computers might reply to each packet when the target network is overwhelmed by all the messages sent simultaneously. Due to this, the network becomes unable to provide services to all the messages and crashes.

12.Which of the following provides security for network traffic (transmitted packets) at the Network or Internet layer?
A. IP
B. UDP
C. TCP
D. IPSec
Answer: D
Explanation:
Internet Protocol Security (IPSec) is a method of securing data. It secures traffic by using encryption and digital signing. It enhances the security of data as if an IPSec packet is captured. Its contents cannot be

read. IPSec also provides sender verification that ensures the certainty of the datagram's origin to the receiver.
Answer option A is incorrect. The Internet Protocol (IP) is a protocol used for communicating data across a packet-switched inter-network using the Internet Protocol Suite, also referred to as TCP/IP.IP is the primary protocol in the Internet Layer of the Internet Protocol Suite and has the task of delivering distinguished protocol datagrams (packets) from the source host to the destination host solely based on their addresses. For this purpose, the Internet Protocol defines addressing methods and structures for datagram encapsulation. The first major version of addressing structure, now referred to as Internet Protocol Version 4 (IPv4), is still the dominant protocol of the Internet, although the successor, Internet Protocol Version 6 (IPv6), is being deployed actively worldwide.
Answer option B is incorrect. User Datagram Protocol (UDP) is one of the core members of the Internet Protocol Suite, the set of network protocols used for the Internet. With UDP, computer applications can send messages, in this case referred to as datagrams, to other hosts on an Internet Protocol (IP) network without requiring prior communications to set up special transmission channels or data paths. UDP is sometimes called the Universal Datagram Protocol.
Answer option C is incorrect. Transmission Control Protocol (TCP) is a reliable, connection-oriented protocol operating at the transport layer of the OSI model. It provides a reliable packet delivery service encapsulated within the Internet Protocol (IP). TCP guarantees the delivery of packets, ensures proper sequencing of data, and provides a checksum feature that validates both the packet header and its data for accuracy. If the network corrupts or loses a TCP packet during transmission, TCP is responsible for retransmitting the faulty packet. It can transmit large amounts of data. Application layer protocols, such as HTTP and FTP, utilize the services of TCP to transfer files between clients and servers.

13.You work as a Network Security Administrator for NetPerfect Inc. The company has a Windows-based network. You are incharge of the data and network security of the company. While performing a threat log analysis, you observe that one of the database administrators is pilfering confidential data.
What type of threat is this?
A. Malware
B. External threat
C. Internal threat
D. Zombie
Answer: C
Explanation:
This type of threat is known as internal threat.
The difference between internal and external threats is as follows:
Internal Threat: Internal threats originate from within an organization. These threats come from the employees and others having legal access. For example, a database administrator who has full access rights can easily steal the data.
External Threat: External threats originate from outside an organization. These are the threats intended to flood a network with large volumes of access requests. These threats can be countered by implementing security controls on the perimeters of the network, such as firewalls, which limit user access to the Internet.
Answer option B is incorrect. External threats originate from outside of an organization, not from within the organization.

Answer option D is incorrect. A zombie is malicious software that secretly takes over another computer connected to the Internet. The zombie's creator uses the same computer to launch attacks that are difficult to detect. Zombies are used in denial-of-service attacks. The attacker plants a zombie in hundreds of computers belonging to unsuspecting third parties, and then uses these computers against targeted websites. These computers are also called zombie computers. Zombies are also used to commit click fraud against sites displaying pay per click advertising. Others can host phishing or money mule recruiting websites.
Answer option A is incorrect. Malware is a combination of the terms malicious and software. It refers to a variety of hostile programs, such as a virus or a Trojan horse, designed to damage or disrupt a computer. It gathers information about a computer without the user's permission or knowledge.

14.Which of the following Web sites is used by the users to browse various products and to make purchases?
A. Micro-site
B. Internet forum
C. Social networking site
D. E-commerce site
Answer: D
Explanation:
Electronic commerce, commonly known as e-commerce or eCommerce, or e-business consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown extraordinarily with widespread Internet usage. E-commerce sites can be used by users to browse various products and to make purchases. Amazon.com is an example of an e-commerce site.
Answer option A is incorrect. A micro-site, also known as a mini site or weblet, is an Internet web design term referring to an individual web page or cluster of pages which are meant to function as an auxiliary supplement to a primary website. The micro-site's main landing page most likely has its own domain name or sub-domain. They are typically used to add a specialized group of information either editorial or commercial. Such sites may be linked in to a main site or not or taken completely off a site's server when the site is used for a temporary purpose. The main distinction of a micro-site versus its parent site is its purpose and specific cohesiveness as compared to the micro-site's broader overall parent website. Micro-sites used for editorial purposes may be a page or group of pages that, for example, may contain information about a holiday, an event or similar item which gives more detailed information than a site's general content area may provide. A community organization may have its main site with all of the organization's basic information, but creates a separate, temporary micro-site to inform about a particular activity, event, or similar.
Answer option B is incorrect. An Internet forum, or message board, is an online discussion site. It originated as the modern equivalent of a traditional bulletin board, and a technological evolution of the dialup bulletin board system. From a technological standpoint, forums or boards are web applications managing user-generated content. People participating in an Internet forum may cultivate social bonds and interest groups for a topic made from the discussions.
Answer option C is incorrect. Social networking Web sites provide a virtual community in which people with a shared interest may communicate. These sites provide users the ability to create their profile page. The users can post their thoughts, ideas, and anything else and can share it with their friends. Some

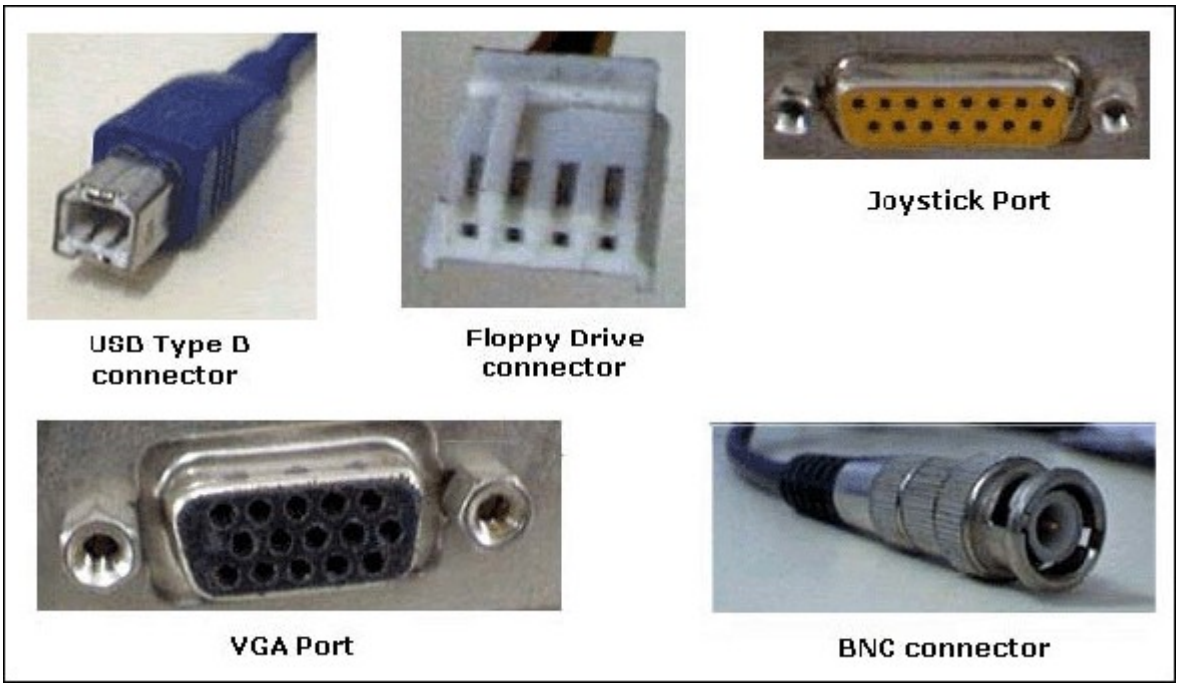
popular social networking sites are MySpace, Twitter, and Facebook.

15.Identify the BNC connector in the image.

Answer:

Explanation:

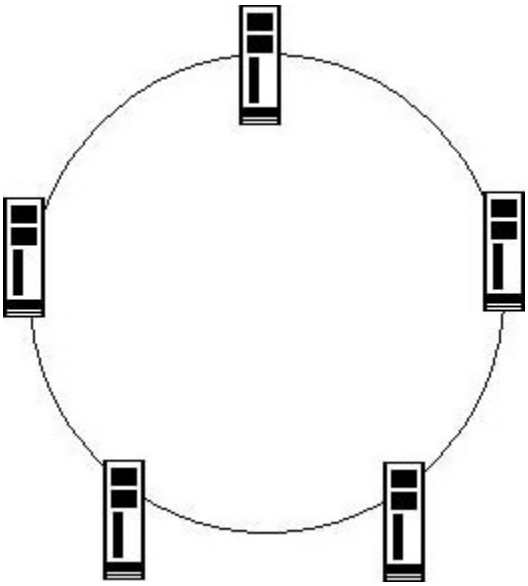
BNC stands for British Naval Connector. It is a connector used to connect 10Base2 cable network to Network Interface Card (NIC).



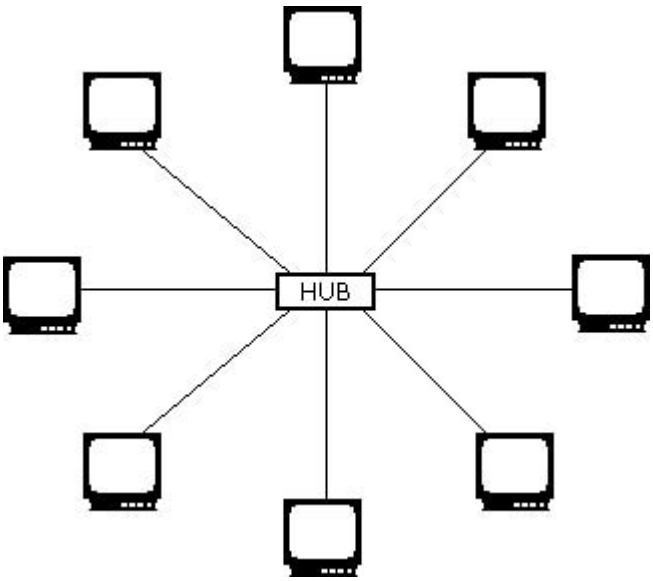
16.Cola Co. manufactures, markets, sells, and distributes non-alcoholic potables such as Lemcaa and Thunder Up under its brand name Cola and uses green and red logo. Mola Co., a new company, starts manufacturing, marketing, selling, and distributing non-alcoholic potables like Lumca and Cloud Up under its brand name Mola and uses green and red logo.
Which of the following violations has been committed by Mola Co.?
A. Copyright infringement
B. Trademark infringement
C. Patent law
D. Plagiarism
Answer: B
Explanation:
Trademark infringement is a violation of the exclusive rights attaching to a trademark without the authorization of the trademark owner or any licensees (provided that such authorization was within the scope of the license). Infringement may occur when one party, the 'infringer', uses a trademark that is identical or confusingly similar to a trademark owned by another party, in relation to products or services that are identical or similar to the products or services that the registration covers. An owner of a trademark may commence legal proceedings against a party that infringes its registration.
Answer option C is incorrect. Patent laws are used to protect the duplication of software. Software patents cover the algorithms and techniques that are used in creating the software. It does not cover the entire program of the software. Patents give the author the right to make and sell his product. The time of the patent of a product is limited though, i.e., the author of the product has the right to use the patent for only a specific length of time.
Answer option A is incorrect. Copyright infringement, also known as copyright violation, is the use of material which is covered by copyright law, in a way that violates one of the original copyright owner's exclusive rights, such as the right to reproduce or perform the copyrighted work, or to make derivative works that build upon it. The slang term bootleg (from the use of boots to smuggle items) is often used to

describe illegally copied material. For media such as movies and music, unauthorized copying and distribution is occasionally called piracy or theft.
Answer option D is incorrect. Plagiarism is defined as the "use or close imitation of the language and thoughts of another author and the representation of them as one's own original work." While plagiarism in scholarship and journalism has a centuries-old history, the development of the Internet, where articles appear as electronic text, has made the physical act of copying the work of others much easier. Plagiarism is not copyright infringement. While both terms may apply to a particular act, they are different transgressions. Copyright infringement is a violation of the rights of a copyright holder, when material protected by copyright is used without consent. On the other hand, plagiarism is concerned with the unearned increment to the plagiarizing author's reputation that is achieved through false claims of authorship.

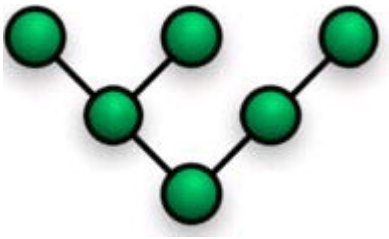
17.In which of the following network topologies does the data travel around a loop in a single direction and pass through each device?
A. Star topology
B. Ring topology
C. Mesh topology
D. Tree topology
Answer: B
Explanation:
Ring topology is a type of physical network design where all computers in the network are connected in a closed loop. Each computer or device in a Ring topology network acts as a repeater. It transmits data by passing a token around the network in order to prevent the collision of data between two computers that want to send messages at the same time. If a token is free, the computer waiting to send data takes it, attaches the data and destination address to the token, and sends it. When the token reaches its destination computer, the data is copied. Then, the token gets back to the originator. The originator finds that the message has been copied and received and removes the message from the token. Now, the token is free and can be used by the other computers in the network to send data. In this topology, if one computer fails, the entire network goes down.
Ring Topology:



Answer option A is incorrect. Star topology is a type of physical network design where each computer in the network is connected to a central device, called hub, through an unshielded twisted-pair (UTP) wire. Signals from the sending computer go to the hub and are then transmitted to all the computers in the network. Since each workstation has a separate connection to the hub, it is easy to troubleshoot. Currently, it is the most popular topology used for networks.
Star Topology:



Answer option C is incorrect. Mesh network topology is a type of physical network design where all devices in a network are connected to each other with many redundant connections. It provides multiple paths for the data traveling on the network to reach its destination. Mesh topology also provides redundancy in the network. It employs the full mesh and partial mesh methods to connect devices. In a full mesh topology network, each computer is connected to all the other computers. In a partial mesh topology network, some of the computers are connected to all the computers, whereas some are connected to only those computers with which they frequently exchange data.
Mesh Topology:
Answer option D is incorrect. In telecommunication networks, a tree network topology is a combination of two or more star networks connected together. Each star network is a local area network (LAN) in which there is a central computer or server to which all the workstation nodes are directly linked. The central computers of the star networks are connected to a main cable called the bus. Thus, a tree network is a bus network of star networks. The tree network topology is ideal when the workstations are located in groups, with each group occupying a relatively small physical region. An example is a university campus in which each building has its own star network, and all the central computers are linked in a campus-wide system. It is easy to add or remove workstations from each star network. Entire star networks can be added to, or removed from, the bus. If the bus has low loss and/or is equipped with repeaters, this topology can be used in a wide area network (WAN) configuration. The tree topology is shown in the figure below:



18.Which of the following search engines can be operated by only using a mouse?
A. Meta-search engine
B. Mono-search engine
C. Web search engine
D. Selection-based search engine
Answer: D
Explanation:
A selection-based search engine is a search engine system in which the user invokes a search query using only the mouse. A selection-based search system allows the user to search the internet for more information about any keyword or phrase contained within a document or webpage in any software application on his desktop computer using the mouse. In a selection-based search engine, the search engine is available outside of the Web browser and highlighting a word or phrase in any document pops up the search tool.
Answer option C is incorrect. A web search engine is designed to search for information on the World Wide Web. The search results are usually presented in a list of results and are commonly called hits. The information may consist of web pages, images, information and other types of files. Some search engines also mine data available in databases or open directories. Unlike Web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input.
Answer option A is incorrect. A meta-search engine is also known as a metacrawler. It is a search tool that sends user requests to several other search engines and/or databases and aggregates the results into a single list or displays them according to their source. Meta-search engines enable users to enter search criteria once and access several search engines simultaneously. Meta-search engines operate on the premise that the Web is too large for any one search engine to index it all and that more comprehensive search results can be obtained by combining the results from several search engines. This also may save the user from having to use multiple search engines separately.
Examples: Dogpile and Vivisimo.
Answer option B is incorrect. There is no such type of search engine.

19.Which of the following connectors uses the push-pull mechanism to make the connection? Each correct answer represents a complete solution. Choose two.
A. LC
B. ST
C. MT-RJ
D. SC
Answer: D and A
Explanation:
The Subscriber connector (SC) and the Lucent connector (LC) use the push-pull mechanism to make the

connection. A subscriber connector (SC) is a fiber-optic connector used with multimode fiber. It is a square shaped connector used for terminating fiber optic cables. SC connectors have a push-pull latching mechanism to provide quick insertion and removal while also ensuring a positive connection.

Answer options B and C are incorrect. The ST and MT-RJ connectors do not use the push-pull mechanism to make the connection.

20.Which of the following networking devices interconnects two or more computer networks, and selectively interchanges packets of data between them?
A. Router
B. Hub
C. Switch
D. Bridge
Answer: A
Explanation:
A router is a device that routes data packets between computers in different networks. It is used to connect multiple networks, and it determines the path to be taken by each data packet to its destination computer. A router maintains a routing table of the available routes and their conditions. By using this information, along with distance and cost algorithms, the router determines the best path to be taken by the data packets to the destination computer. A router can connect dissimilar networks, such as Ethernet, FDDI, and Token Ring, and route data packets among them. Routers operate at the network layer (layer 3) of the Open Systems Interconnection (OSI) model. A router is a device that interconnects two or more computer networks, and selectively interchanges packets of data between them.
Answer option D is incorrect. A bridge is an interconnectivity device that connects two local area networks (LANs) or two segments of the same LAN using the same communication protocols, and provides address filtering between them. Users can use this device to divide busy networks into segments and reduce network traffic. A bridge broadcasts data packets to all the possible destinations within a specific segment. Bridges operate at the data-link layer of the OSI model.
Answer option B is incorrect. A hub is a device used to link computers in a network. It connects computers that have a common architecture, such as Ethernet, ARCnet, FDDI, or Token Ring. All hub-computer connections for a particular network use the same type of cable, which can be twisted-pair, coaxial, or fiber-optic. Hubs are generally used in star topology networks. Token Ring hubs are also known as Multistation Access Units (MSAUs). A hub works on the physical layer of the OSI model.
Answer option C is incorrect. A switch is a network device that selects a path or circuit for sending a data unit to its next destination. It is not required in smaller networks, but is required in large inter-networks, where there can be many possible ways of transmitting a message from a sender to destination. The function of switch is to select the best possible path.On an Ethernet local area network (LAN), a switch determines from the physical device (Media Access Control or MAC) address in each incoming message frame which output port to forward it to and out of. In a wide area packet-switched network, such as the Internet, a switch determines from the IP address in each packet which output port to use for the next part

of its trip to the intended destination.