679. **network** a collection of computers and other equipment for sharing data and resources
680. <u>**What are benefits?**</u> <u>Allows sharing of Internet, sharing a printer and other devices</u>.
681. **wireless networking** is using electronic waves rather than wires
682. **node** a device hooked up to a network.
683. **WiFi** wireless 802.11 standard radio waves **range** 150-1000 ft~3KM outside WiFi-N 270 Mbps
684. **hotspot**: area within range of a WiFi network or networks with speeds of 2-50 Mbits,
685. **IR** Port that transmits data from wireless devices using infrared light waves
686. <u>**Bluetooth**</u> short range radio standard using radio waves range 100 Meters 2 Mbits/s
687. **bay** an opening inside the system unit where additional equipment can be placed.
688. analog signal:a signal that continuously fluctuates over time between high and low voltage.
689. digital devices that understand only two discrete states, on and off; describe most computers
690. Internet telephony using the Internet for telephoning
691. **VoIP** <u>Voice over Internet Protocol</u> allows phone conversations over Internet or network
692. **Public Access Point** a wireless transmitter for public use
693. <u>**Bandwidth**</u> the speed of a connection. is measured in bits per second
694. **Throughput** is the actual speed of data transfer that is achieved. Usually measured in **Mbps** megabits per second.
695. **Cat 6 best to use** as is designed for gigabyte connections. But Cat 5 was for 100Mbps.
696. Test internet connection speed at speedtest.net or broadband.gov
697. **UTP** unshielded twisted pair cable composed of 4 pairs of wire twisted around themselves is the **most commonly used network cable.** P317 limit 100 meters (328')
698. **Broadband** high speed (over 200Kbps) Internet connection usually using Cable, DSL or T lines
699. **Coax** coaxial cable consists of a single copper wire surrounded by three layers.
700. **GPS** global positioning system a satellite system for finding location
701. voice mail is e-mail using voice
702. wireless messaging sending messages without using wires
703. **LAN** Local area network which is a network covering a small area
704. **Ethernet** protocol that allows PCs to contend for access to the network. 10-100 Mbps
705. NAS network attached storage device
706. <u>**TCP/IP**</u> Communications protocol used to define packet switching on the internet.
707. Packet is an organized collection of data that is transmitted over a network .
708. **radio waves** electromagnetic radiation used to transmit signals over a distance
709. **WAN**   Wide Area Network   example the Internet
710. **microwave** a short electromagnetic wave used for communication
711. **Wireless Access Point** central communications device that allows data transfer wirelessly
712. **802.11** wireless communication standard known as Wi-Fi also spelled WiFi
713. **Why not go wireless**? more expensive, possible security problems, interference, batteries
714. **WIMAX** 802.16 next generation wireless broadband which is faster than WiFi has 31 mile range
715. **Intranet**? Internal private network; sometimes called an enterprise network.
716. **DSL** what is significant about it? probably best price bargain for higher speed
717. **Cable**   fastest affordable connection for most people
718. **twisted-pair** cable is the most commonly used networking method.
719. **fiber-optic** cable is superior, faster10 Gbps, static free, smaller, more secure. Lighter
720. **BMP** Bit Mapped picture a graphics format in which every dot is mapped, very big fil
721. .**PNG** replaces JPEG and is better
722. **CAD** computer aided design used by engineers and designers

723. **GIMP** program that is a free photoshop replacement

724. Irfanview a very good free foto viewing program and more

725. **MIDI** interface for musical instruments

726. **podcast** is a MP3 audio file less than 10% of original size or with video MP4 to make just record, edit export to MP3 RSS is really simple Youtube RSS video

727. sampler digitally records real musical instrument to be played back at various pitches

728. sequencer allows adding tracks

729. synthesizer 289 produce sounds electronically

730. ADC analog to digital uses sampling to encode a sound wave 44,100 sps

731. **P2P** Kinds of networks Peer to peer just one machine hooked up to another with crossover cable

732. **Ethernet newtork** machines hooked up by CAT 6 cables hooked to a router

733. Client-Server a client machine hooked up to another called a server to share files from the server

734. **How to make a wireless set up more secure? Disable broadcasting of network SSID, Change the network name to a name differently from that of the factory name, use new password, turn on security protocols to WPA, Impliment media access control so it only accepts to certain computers, Limit the signal range,** apply firmware upgrades.

735. extranet an area of an intranet that only certain folks can access.

736. VPN virtual private network uses the public Internet to build a secure, private network among various locations. Uses tunneling data packets placed inside other data packets encrypted.

737. ViFi vehicle WiFi allows a moving device to connect to more than one access point at same time

738. **Fiber Optic Cable** made of glass or plastic fibers. Data can only travel in one direction. Comparison with wired max run length w 328' FO 62miles, bandwidth 10Gbps FO 10-40Gbps, FO less interferance but higher cost.

739. OSI Model see book for details.   Network adapters Switches, Bridges, Routers

740. **MAC addresses** media access control address Network security, Authentication, access privileges

741. Users connect to an ISP thru a POP point of presence. Could be bank of routers, modems, servers. Most done on client/server model but BitTorrent uses peer-to-peer

742. TCP/IP is the main suite of protocols Transmission Control Protocol and Internet Protocol

743. DNS domain name server stores the ip addresses of each top level domain

744. HTTP is the protocol used by a browser to transfer documents across the internet.

745. **SSL** secure socket layer and **TLS** are network security protocols

746. HTML and XHTML are scripting languages to mark up text for use as a web page

747. XML extensible mark up scripting language describes the content in terms of what data is being described rather than how it is to be displayed.

748. CGI common gateway interface provides a methodology by which your browser can request that a program file be executed instead of just being delivered to the browser. CGI scripts are placed in a directory called cgi-bin. This holds scripts to be run by the server. Called a server-side-program.

749. Dynamic HTML is used to create web pages that change after being loaded.

750. **JavaScript** is the most commonly used scripting language for creating DHTML effects.

751. Private Browsing feature stops recording of site history

752. To have more privacy use PGP Pretty Good Privacy from download.com also hushmail.com and comodo.com have encrypted mail

753. WIMAX a wireless alternative to WiFi worldwide interoperability for microwave access. Range 31 miles speed of up to 72Mbps faster than DSL