Q: Name some advantages of networks?

A: Device sharing (printers, photocopiers etc). Workgroups (sending data to each other, working together). Communications (email, VoIP (Voice over IP), video conferencing (Skype)). Security (Central control of all virus protection, firewall etc)

Q: Name some disadvantages of networks?

A: Expertise (gets complicated, you have to pay for people to look after it). Security (one bad virus can affect lots of computers, stolen passwords, multiple users)

Q: What is a NIC?

A: Network Interface card. Allows a device to connect to a computer. These can be wired or wireless.

Q: What is a Terminator?

A: Found on a BUS network. This device kills and unwanted signal to prevent the signal “bouncing” back and disrupting other signals.

Q: What is a repeater?

A: A device that is used to BOOST the strength of a signal over a long distance on a network.

Q: What is a hub?

A: A hub can attach a large number of devices to a network. It broadcasts data packets everywhere until they reach their destination.

Q: What is a switch?

A: A CLEVER hub. It can attach a large number of devices to a network but only sends data packets from the source to the destination.

Q: What is a router?

A: A device that routes data to its destination network, perhaps through other networks.

Q: What is a client/server network?

A: Very common. Servers on the network provide services to the clients (normal computers) on the network. You can have FILE servers, PRINT servers, WEB servers etc

Q: What is a peer to peer network?

A: A network where all the devices connected are equal. They can act as both client and server.

Q: What are advantages of a client server network?

A: Central control of security, easy to perform software upgrades/installation, easy to perform backups, few data collisions.

Q: What are disadvantages of a peer to peer network?

A: No Central control of security, restarting maching while a user is accessing it, not easy to perform backups.

Q: What are the advantages of a BUS network?

A: Cheap, simple, fast if small network

Q: What are the disadvantages of a BUS network?

A: Slow if bigger, data collisions are high, low redundancy

Q: What are the advantages of a RING network?

A: Cheapish, simple, fast if small network, no data collisions

Q: What are the disadvantages of a RING network?

A: Slow if bigger, low redundancy

Q: What are the advantages of a STAR network?

A: High redundancy, low data collisions (especially with a switch)

Q: What are the disadvantages of a STAR network?

A: Cost, complicated

Q: What does LAN stand for?

A: Local Area Network. A network inside a building (school network).

Q: What does WAN stand for?

A: Wide Area Network. A network over a large area (Internet)

Q: What does MAN stand for?

A: Metropolitan Area Network. A network inside a city.

Q: What does PAN stand for?

A: Pan Area Network. A network personal to you. (Bluetooth headset, phone connecting to car)

Q: What does VPN stand for?

A: Virtual Private Network. A private and secure network made from software that sits on top of a public unsecure network, such as the Internet. It uses encryption to secure the network.

Q: What is fastest fibre cable, copper cable or wireless?

A: Fibre

Q: What is the least secure fibre cable, copper cable or wireless?

A: Wireless

Q: What is the cheapest fibre cable, copper cable or wireless?

A: Copper

Q: What is the dearest fibre cable, copper cable or wireless?

A: Fibre

Q: What is an SSID in a wireless network?

A: Service Set identifier. The name of the wireless network.

Q: What is a MAC address list?

A: All machine have a MAC address. You can set a list of MAC addresses that are the only ones allowed on your network, making it more secure.

Q: What is packet switching?

A: Data is sent in packets. The packet has a header which has the destination and source IP address. It also has a payload that holds the data that needs to be sent. The packets are sent from one router to the next

Q: What is Bandwidth when talking about networks?

A: This is the data capacity of a network. It is measured in kilobits or megabits per second.

Q: Name 4 common rules included in a network policy.

A: Use polite language online, Do not reveal personal details, not downloading programs, not using the network for personal commercial purposes.

Q: Explain how you can PREVENT damage to networks in the case of a disaster?

A: Locking fire doors, use strong passwords, employing security guards, use firewalls, anti-virus, backing up data.

Q: Explain how you can DETECT damage to networks in the case of a disaster?

A: Can be done automatically through software generating warnings and reports.

Q: Explain how you can CORRECT damage to networks in the case of a disaster?

A: Back-ups, Incremental back-ups, failovers, archiving.

Q: Explain in terms of networks and protocols what the Internet is?

A: The Internet is a network of networks that is worldwide. The overriding protocol for the Internet is the TCP/IP protocol.

Q: Explain what modem does.

A: It converts analogue signals into digital signals and vice versa. This is how the signals on the POTS(plain old telephone system) are converted into digital form for the computer to understand.

Q: What is IP addressing?

A: Each device on a network is GIVEN an IP address. This is the address the routers send the data packets to and from. It is made up of 4, 8 bit numbers(bytes). EG 192.168.2.1

Q: Explain what the Domain Name Server (DNS) does.

A: It converts domain names (EG bbc.co.uk) into IP addresses so the routers know where to send the and retrieve data packets.

Q: What is HTML.

A: HyperText MarkUp language is a parser language that has been agreed as the standard to write webpages in. It uses opening tags and closing tags to achieve this. For example <html> </html>, <body></body>