1.) ARPANET

2.) IP is tasked with routing data packets across the internet from router to router

3.) The TCP makes a connection with each end of this connection using a port address

connected to the application being used, it also dissolves connections after all data is exchanged. TCP can also control the flow at which information is sent from the sender to the receiver. It can also establish multiplex multiple connections over 1 IP connection. TCP can perform checks in order to minimize loss of data and proper sequence of bits. It can set different levels of priority.

4.) Since the IP address ids a device connect to the Internet, and the port number ids an

application on said device, the two together are used to find a precise app on a specific device.

5.) UDP is not the same as TCP because TCP waits for a connection to be made before

data is sent as opposed to UDP which can simply send a data packet without making a connection to the destination port.

8.) No, DHCP is a protocol to minimize the amount of unused IP address while NAT is a

barrier that keeps workstations inside a network, to a certain extent, hidden from the outside world by giving the whole network 1 IP address and sorting the inbound and outbound information.

12.) To identify various data object(files, web pages, images, etc.) location on the internet, in

order to retrieve it.

13.) Service type, domain name, directory information, and filename.

15.) Class A, B, C, D, and E

18.) VoIP is more reliable over the internet because business networks are already under

strain sending data back and forth from node to node, and by adding the service of sending voice over said network, more strain is placed on the network of the business creating congestion in the data traffic.

27.) A cookie is a small amount of information that is stored on a user's machine. The

information is about what the user has purchased, view in the past, or is interested in viewing. Web sites that would benefit from tracking your browsing patterns by selling that data are usually the ones to make cookies.

30.) The biggest difference between IPv6 and IPv4 is the size of the address. Since IPv6 has

128 bit address length, it has virtually unlimited number of unique addresses.

31.) Internet2 is a new network that has transmission rates of up to 1000Mbps, host virtual

laboratories in which various experiments not suitable for the real world can be done, and connect schools and organizations with digital libraries of various books, art, papers, video, etc.

5.) Once one of the router has exhausted the possible routers to send packets to, and finds

out that there is no router to send to according to the routing table, then an error message will be generated indicating that there is no router able to establish a connection.

6.) ARP allows a router to find the necessary destination of a frame by asking on the LAN

which workstation this specific frame belongs to and makes a note of the destinations

information so that the frame itself doesn’t have to carry around that information.

9.) Since the NAT software keeps a list of sorts of what each user requested, the NAT will

know where to send the received data based on who asked for it.

10.) It’s a class C IP address, with 256 hosts in said class.

12.)