Part 1:

Ip – Internet Protocol operate by taking care of identifying the address and making sure that the packets routers should be delivered to the right route to the receiver. Internet protocol address are consisting of 4 numbers. Separate by full stop of each components that display routes address. For example, using CMD Prompt application with ipconfig command. It enables me to view my own IPv4 address (192.168.0.171). Within it, each personal computer on internet have a complete separate unique IP address that are being assigned. The first numbers (192) that are being identified by the internet routers is the type of network the personal computer is being connected. Whereas the last numbers (171) are display of network routing to which computer or host it should be receiving the packet. This protocol helps one of the protocols called TCP. Where it attaches both the origin and destination of IP addresses, so the packet knows where it came from and where its going.

TCP – Transmission Control Protocol; defines how applications create communication channels. It operates like intangible factory where once TCP received data from SMTP (Email), HTTP (website) and FTP (files transfer). It chops into small single pieces of chunks called packets where they can individually take the quickest route over internet to get wherever the packets is needed to go. To make sure the receiver of computer can put packets back together properly. TCP creates a header onto each packet that contains instruction details on what order to reassemble the packets as well as error detection on information. So, the receiver of computer knows whether the packet data arrived without any mishaps. Once assembled with the assistance of IP protocol route direction. It then lets the network carry the data to the next layer of data link. Where it handles things like Mac addressing so the packets can go to the right machine such as device driver in the Operation System.