

# WEEK 1

## Networking Basics

- 1) A device that knows how to forward traffic between independent networks is known as a - **router**.
- 2) The number system that has 16 numerals is known as **hexadecimal**.
- 3) Something that requests data from a server is known as a **client**
- 4) A device that connects lots of devices and remembers which ones are connected to each interface is known as a **switch**.
- 5) UDP stands for **User Datagram Protocol**
- 6) What layer in the Transmission Control Protocol/Internet Protocol(TCP/IP) model does IP use - **Network**
- 7) A user has multiple web pages open and is using email. Which layer of the Transmission Control Protocol/Internet Protocol (TCP/IP) model is responsible for sorting the data to send email and web pages to the appropriate location - **Transport**
- 8) A system has defined specifications that describe how signals are sent over connections. Which layer of the Transmission Control Protocol model provides this function - **Data Link**
- 9) What will allow you to form point-to-point networking connections - **Cables**
- 10) You open a web page and log into your email. The traffic travels over many routers. What protocol will the routers use to determine the most optimal path to forward the traffic - **Border Gateway Protocol (BGP)**
- 11) How many wires are in a standard Category 6 cable - **6**
- 12) What is the most common plug used with twisted pair network cables - **Registered Jack 45**
- 13) A communications closet has a device that contains 48 ports. The device's sole function is to provide the ports. What type of device is in the closet - **Patch Panel**
- 14) You need to identify the manufacturer of a network interface. Where will you look for this information - **The first three Octets of a Media Access Control (MAC) address**
- 15) What type of transmission will have a zero in a special bit in the destination Media Access Control (MAC) address - **Unicast**
- 16) Where is the Start Frame Delimiter (SFD) found in an ethernet frame - **The last byte of the preamble**