Google IT Support Certificate: Course 2: The Bits and Bytes of Computer Networking

Week 3: The Transport and Application Layers

Practice Quiz: The Transport Layer

Question 1:

What ordering of TCP flags make up the Three-Way Handshake?

SYN, ACK, FIN

SYN, ACK, SYN, ACK

SYN, SYN/ACK, ACK

FIN, FIN/ACK, ACK

The computer that wants to establish a connection sends a packet with the SYN flag set. Then, the server responds with a packet with both the SYN and ACK flags set. Finally, the original computer sends a packet with just the ACK flag set.

Question 2:

Transport layer protocols, like TCP and UDP, introduce the concept of a port. How many bits are in a port field?

16

4

8

32

A TCP port and a UDP port are both 16-bit numbers, meaning there are theoretically 65,535 possible values it can have.

Question 3:

A device that blocks traffic that meets certain criteria is known as a _____.

Firewall

Hub

Switch

Router

A firewall is used to block certain types of traffic.

Question 4:

Which TCP flag is used to make the listening program respond immediately?

RST

PSH

ACK

URG

When the Push (PSH) flag is set, the transmitting device wants the receiving device to push currently buffered data to the application on the receiving end as soon as possible.

Question 5:

_____are identified as ports 49152 through 65535.

User ports

Sockets

System ports

Ephemeral ports

Ephemeral Ports are identified as ports 49152 through 65535. Ephemeral ports are used as temporary ports for private transfers.