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

Week 1: Introduction to Networking

Practice Quiz: The Physical Layer

Question 1:

What modulation type is used for computer networks?

Line coding

RJ45

Line crimping

Simplex communication

Line coding is the modulation of an electrical charge so that each side of a connection knows what is a one and what is a zero.

Question 2:

What is the difference between a full duplex and a half duplex?

Full duplex is a form of simplex communications.

Full duplex is slower than half duplex.

Full duplex allows communications in two directions at the same time; half duplex means that only one side can communicate at a time.

A half-duplex connection allows communication in both directions, but only one side can communicate at a time.

Half duplex occurs when hubs are in use; full duplex occurs when switches are in use.

Question 3:

The _____ consists of devices and means of transmitting bits across computer networks.

physical layer

modulation

data link layer

network layer

The physical layer is the first layer of the TCP/IP Five-Layer Network Model and is in charge of transmitting bits across computer networks.

Question 4:

What is the most common type of cabling used for connecting computing devices?

VGA Cable

Power Cable

Twisted Pair Cable

SATA Cable

Twisted-pair cable features pairs of copper wires that are twisted together.

Question 5:

Which of the following are category types of Twisted Pair Ethernet cables? (Select all that apply.)

Shielded Twisted Pair (STP)

Unshielded Twisted Pair (UTP)

USB Cable

Foiled Twisted Pair (FTP)

An STP cable uses braided aluminum and/or copper shielding to encase the four twisted pairs underneath the outer jacket.

A UTP cable is the most common and least expensive type of Ethernet cable found in business and home networks.

An FTP cable uses a thin foil shield that wraps around the bundle of twisted-pair wires underneath the outer jacket.