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

Week 1: Introduction to Networking

Practice Quiz: The Data-Link Layer

Question 1:

How many octets are there in a MAC address?

8

6

5

4

A MAC address is a 48-bit number consisting of 6 octets.

Question 2:

What address is used for Ethernet broadcasts?

00:00:00:00:00:00

FF:FF:FF:FF:FF:00

11:11:11:11:11:11

FF:FF:FF:FF:FF:FF

The address FF:FF:FF:FF:FF:FF is used for Ethernet broadcast traffic.

Question 3:

What is a cyclical redundancy check?

A way for two computers to synchronize their clocks.

A mathematical calculation used to ensure that all data arrived intact.

A technique that allows for multiple logical LANs to operate on the same equipment.

The actual data being transported by an Ethernet frame.

A cyclical redundancy check ensures that there was no data corruption.

Question 4:

Which of the following are ways for transmitting data at the Ethernet level? (Select all that apply)

Duplex

Broadcast

Unicast

Multicast

Broadcast transmission is when one device sends data to every single device on a LAN.

Unicast transmission is when one device transmits data to another device. A unicast transmission is always meant for just one receiving address.

Multicast transmission is when one device transmits data to multiple devices.

Question 5:

Which of the following are parts of an Ethernet frame? (Select all that apply)

EtherType field

Preamble

Broadcast

Data payload

EtherType field is 16 bits long and used to describe the protocol of the contents of the frame.

The preamble is the first part of an Ethernet frame.

This contains all of the data from higher layers, such as IP, transport, and application layers, that's actually being transmitted.