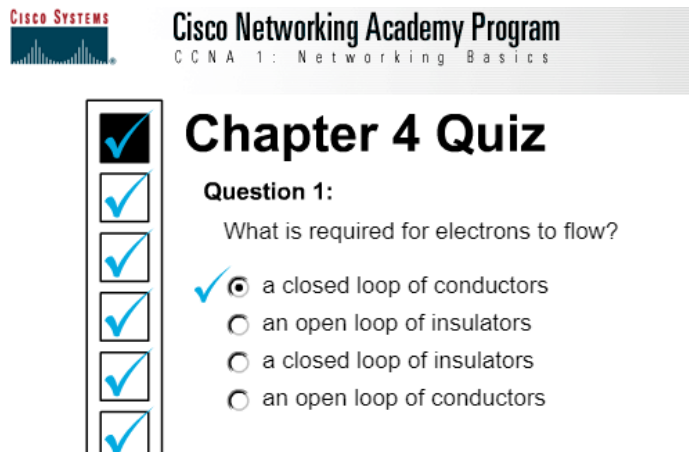


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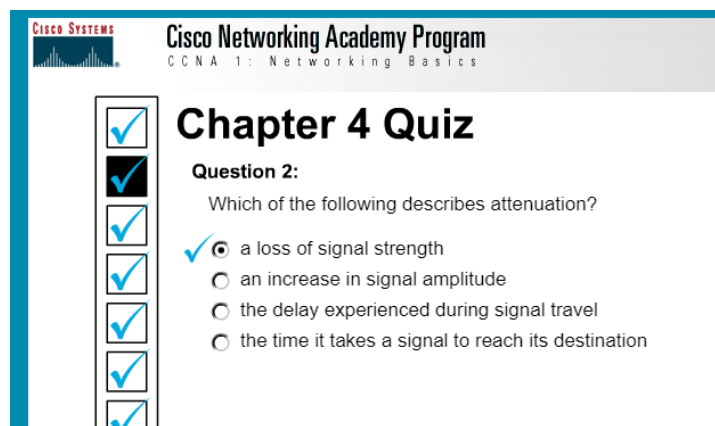
Komunikasi Data  
Quiz 2  
Chapter 4

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The screenshot shows the Cisco Networking Academy Program logo and the text "Cisco Networking Academy Program CCNA 1: Networking Basics". Below this is a vertical list of seven checkboxes, all of which are checked. To the right of this list is the title "Chapter 4 Quiz" and "Question 1: What is required for electrons to flow?". There are four radio button options: "a closed loop of conductors" (which is selected), "an open loop of insulators", "a closed loop of insulators", and "an open loop of conductors".

1. Beside a closed loop of conductors we also need a source of potential in the conductor loop and electric load to balance the potential in the loop.



The screenshot shows the Cisco Networking Academy Program logo and the text "Cisco Networking Academy Program CCNA 1: Networking Basics". Below this is a vertical list of seven checkboxes, all of which are checked. To the right of this list is the title "Chapter 4 Quiz" and "Question 2: Which of the following describes attenuation?". There are four radio button options: "a loss of signal strength" (which is selected), "an increase in signal amplitude", "the delay experienced during signal travel", and "the time it takes a signal to reach its destination".

2. Attenuation is a general term that refers to any reduction in the strength of a signal. Attenuation occurs with any type of signal, whether digital or analog. Sometimes called *loss*, attenuation is a natural consequence of signal transmission over long distances. The extent of attenuation is usually expressed in units called decibels (dBs).

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## Chapter 4 Quiz

**Question 3:**  
Which of the following is a cause of crosstalk?

- poorly terminated network cabling
- the loss of a signal's ground reference
- AC line noise coming from a nearby video monitor or hard disk drive
- FM Radio signals, TV signals, various types of office equipment

3. Crosstalk refers to electromagnetic interference from one unshielded twisted pair to another twisted pair, normally running in parallel. Signals traveling through adjacent pairs of wire interfere with each other. The pair causing the interference is called the “disturbing pair,” while the pair experiencing the interference is the “disturbed pair”.

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## Chapter 4 Quiz

**Question 4:**  
Which material is considered an electrical semiconductor?

- air
- silicon
- glass
- gold

4. A semiconductor material has an electrical conductivity value falling between that of a conductor – such as copper, gold etc. – and an insulator, such as glass. Their resistance decreases as their temperature increases, which is behavior opposite to that of a metal. Most commonly used semiconductor materials are crystalline inorganic solids and silicon.



## Chapter 4 Quiz

**Question 5:**

Which of the following describes Manchester encoding?

- Bits are represented by transitions in voltage.
- Bits are represented by +5V (or +3.3V) and 0V values.
- Bits are represented by modulations in the frequency of a carrier wave.
- Bits are represented by modulations in the amplitude of a carrier wave.

5. In data transmission, Manchester encoding is a form of digital encoding in which data bits are represented by transitions from one logical state to the other. This is different from the more common method of encoding, in which a bit is represented by either a high state such as +5 volts or a low state such as 0 volts.



## Chapter 4 Quiz

**Question 6:**

What must occur before Layer 2 devices can process a signal that has been transmitted on their LAN segment?

- The frame must be encoded as bits.
- The signal must be decoded into a packet.
- The signal must be converted from voltages to bits.
- The signal must be converted from bits to voltages.

6. In layer 1 is an analog signal or voltage. that's why it must be converted to digital signal or bits before layer 2.



## Chapter 4 Quiz

**Question 7:**

Which of the following is a design goal when planning Ethernet networks?

- increasing the number of collision domains
- localizing and minimizing the number of collisions
- enlarging and extending physical network segments
- maximizing the number of hosts that have access to the shared medium

7. Design goal when planning Ethernet network are to minimizing the number of collisions data in a network and minimizing form of a network and make it compact.



## Chapter 4 Quiz

**Question 8:**

What does the *ground plane* provide in a computer circuit board?

- heat sink
- high resistance to ground
- signal reference ground
- spike dampening

8. Because to reduce the occurrence of EMI (Electro Magnetic Interference), it is where unwanted signal come in a circuit. Ground refrence is initialized as resistance and indutation where it is reated inside the internal signal trace nside the cable. it usually not designed to carry any current so as not to interfere.