

Networking Basics Assignment

Instructions

Answer the following questions to the best of your ability. Leave space for detailed responses where necessary.

Question 1

What is a computer network, and why is it important in today's digital world?

Answer:

A computer network is when computers are connected so they can share information and resources. It's important because it allows people to send messages, access the internet, and share files easily. Without networks, we wouldn't be able to use things like email or browse websites.

Question 2

Describe the differences between a Local Area Network (LAN) and a Wide Area Network (WAN). Provide examples of where each might be used.

Answer:

A **Local Area Network (LAN)** is used in small areas like homes or offices. It connects devices close to each other, like computers and printers.

A **Wide Area Network (WAN)** is larger and connects computers over long distances, such as in different cities or countries.

For example:

- A **LAN** is commonly used in **schools and offices**.
 - A **WAN** can connect **bank branches in different cities**.
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Question 3

What is the role of a router in a network? How does it differ from a switch?

Answer:

A **router** helps connect different networks, such as your home network to the internet. It decides where data should go.

A **switch**, on the other hand, is used within a single network to connect devices like computers and printers.

- **Routers** work **between networks**.
 - **Switches** work **within a single network**.
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