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NETWORK SYSTEMS ADMINISTRATION

ASSIGNMENT

Using 300 words state the differences and similarities between the OS and/IP models.

Differences:

1. Development History: The OSI model was developed by the international organization for standardization (ISO) while the TCP/IP model was developed by the U.S Department of Defense for use in ARPANET, the early form of internet.
- Reliability: The presence of many layers in the OSI model makes it a less reliable for transmission while the 4 layers in the TCP/IP model make it more reliable, simpler and more practical for real world implementation
 - Layer Names and Functions: In the OSI model, each layer has well-defined functions and specific names while in the TCP/IP model layer names are generalized and the functions within each layer may overlap making it more flexible
 - Number of layers: the OSI model has 7 layers while the TCP/IP model has 4 layers. .
 - Delivery: Delivery of data packets in the OSI model is guaranteed because an acknowledgement is sent between the receiver and sender after transmission while in the TCP/IP no such communication occurs thus delivery of the data packets is not guaranteed. .

Onto the similarities:

- Hierarchical Structure: both models organize their respective layers in a hierarchical manner with each layer building upon the services provided by the layers below it.
- Networking and Communication process: both models define the standards of networking by simplifying and dividing the network communication process into various layers using protocols.
- Encapsulation: data in both models is encapsulated as it moves through layers. This means that as data passes the higher layers to lower layers, additional headers and control information are added to the original data.
- Layered Approach: both models use a layered approach with protocols that govern communication between layers.