**SCT212-0104/2022**

Differences between the OSI model and the TCP/IP model.

1. Number of Layers:

- OSI Model: Comprises seven layers (Physical, Data Link, Network, Transport, Session, Presentation, and Application).

- TCP/IP Model: Consists of four layers (Network Interface, Internet, Transport, and Application).

2. Layer Naming:

- OSI Model: Uses abstract and generic names for its layers.

- TCP/IP Model: Employs more functional and straightforward names for its layers.

3. Origin:

- OSI Model: Developed by the International Organization for Standardization (ISO) in the late 1970s.

- TCP/IP Model: Evolved from the ARPANET project and was developed in the late 1960s and early 1970s.

4. Granularity:

- OSI Model: Offers a more granular and detailed breakdown of network functions and responsibilities.

- TCP/IP Model: Simplifies the layer structure for practicality.

5. Practical Implementation:

- OSI Model: Often used for educational purposes, in-depth analysis, and as a theoretical framework.

- TCP/IP Model: Widely adopted for practical networking implementations on the internet.

The differences between the OSI model and the TCP/IP model encompass the number of layers, the naming of layers, historical context, granularity, and their intended use.

**SIMILARITIES**

1. Both are networking models used as conceptual frameworks.
2. Both aid in understanding network communication through a layered approach.
3. Both function as reference models, though with different purposes - the OSI model for education and analysis, and the TCP/IP model for practical implementation.
4. Both provide a foundational understanding of networking, with the OSI model being more theoretical and the TCP/IP model more practical, especially for internet-based networking.