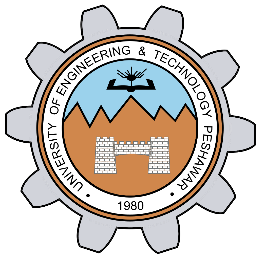
Assignment No 02



**Spring 2023**

**Data Communication and Networking**

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“On my honor, as student of University of Engineering and Technology, I have neither given norreceived unauthorized assistance on this academic work.”

Submitted to:

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TASK 1:

The OSI Model: An Overview

For the "Which Layer" in the QuesƟons below, answer using the layer number (1-7)

Answer the quesƟons below.

1. Which layer would choose to send data over TCP or UDP?

**4**

1. Which layer checks received informaƟon to make sure that it hasn't been corrupted?

**2**

1. In which layer would data be formaƩed in preparaƟon for transmission?

**2**

1. Which layer transmits and receives data?

**1**

1. Which layer encrypts, compresses, or otherwise transforms the iniƟal data to give it a standardized

format?

**6**

1. Which layer tracks communicaƟons between the host and receiving computers?

**5**

1. Which layer accepts communicaƟon requests from applicaƟons?

**7**

1. Which layer handles logical addressing?

**3**

1. When sending data over TCP, what would you call the "bite-sized" pieces of data?

**segments**

1. Which layer would the FTP protocol communicate wit?

**7**

1. Which transport layer protocol would be best suited to transmit a live video?

**UDP**

TASK 2:

ENCAPSULATION

Answer the questions below

1. How would you refer to data at layer 2 of the encapsulaƟon process (with the OSI model)?

**Frames**

1. How would you refer to data at layer 4 of the encapsulaƟon process (with the OSI model), if the UDP

protocol has been selected?

**Datagram**

1. What process would a computer perform on a received message?

**De-encapsulation**

1. Which is the only layer of the OSI model to add a trailer during encapsulation?

**data link**

1. Does encapsulaƟon provide an extra layer of security (Aye/Nay)?

**Aye**

TASK 3:

The TCP/IP Model

Answer the questions below

1. Which model was introduced first, OSI or TCP/IP?

**TCP/IP**

1. Which layer of the TCP/IP model covers the funcyionality of the Transport layer of the OSI model (Full Name)?

**Transport**

1. Which layer of the TCP/IP model covers the funcƟonality of the Session layer of the OSI model (FullName)?

**Application**

1. The Network Interface layer of the TCP/IP model covers the functionality of two layers in the OSI model. These layers are Data Link, and?.. (Full Name)?

**Physical**

1. Which layer of the TCP/IP model handles the funcƟonality of the OSI network layer?

**internet**

1. What kind of protocol is TCP?

**Connection-based**

1. What is SYN short for?

**synchronise**

1. What is the second step of the three way handshake?

**SYN/ACK**

1. What is the short name for the "Acknowledgement" segment in the three-way handshake?

**ACK**

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