## **IT1X62 Network Technology**

## **Tutorial 2 – Network Protocols and Communications**

- 1. Discuss the benefits of using a layered model in communicating programs.
- 2. List the 7 layers in the OSI reference model (from the highest to the lowest).
- 3. Using a diagram, map the corresponding layers between the OSI Reference Model and the TCP/IP Networking Model.
- 4. What is the primary purpose of the lower four layers?
  - a. Format the user data
  - b. Provide reliable communication of data across a network
  - c. Implement the OSI architecture
  - d. Decrease the response time of user communications
- 5. Which OSI model layers are concerned primarily with applications:
  - a. All seven
  - b. The top three layers
  - c. The lower four layers
  - d. The bottom two layers
- 6. Match the following layers on the left column with the data units on the right column:

Transport Layer Bits

Network Layer Frames

Data Link Layer Packets

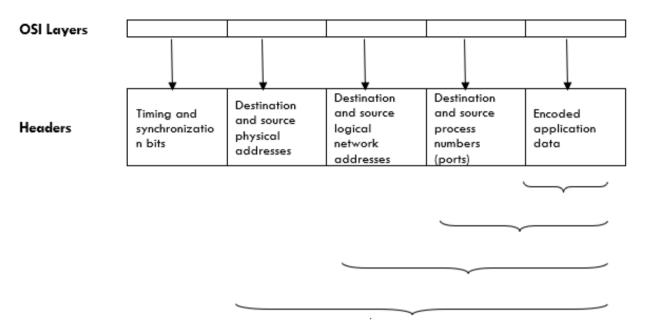
Physical Layer Segments

7. Using a diagram, briefly explain the concept of encapsulation.

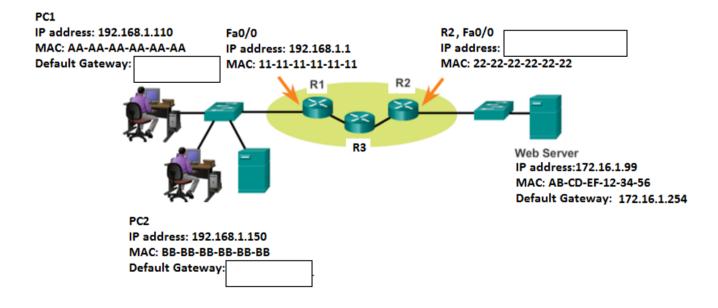
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8. List the OSI layers and the corresponding PDUs based on the headers shown below:-



9. Identify the logical network addresses in the blanks below.



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