

Tutorial 1

ELEC3506/9506 – Communication Networks

1. List the layers of the OSI model and the TCP/IP protocol suite (the Internet Model)
2. How do the layers of the OSI correlate to the layers of the TCP/IP protocol suite?
3. Which layers of the TCP/IP protocol suite are the network support layers and which layers are the user support layers?
4. What is data encapsulation (with respect to Questions 1-3)?
5. What are the responsibilities of the Data Link layer?
6. What is the difference between Network layer and Transport layer delivery?
7. If the Data link layer can detect errors between hops, why do you think we need another mechanism at the Transport layer?
8. What are the responsibilities of the Network layer?
9. What are the responsibilities of the Transport layer?
10. What is the difference between a port address, a logical address and a physical address?
11. Name some services provided by the Application layer
12. What are the advantages of combining Session, Presentation and Application layers of the OSI model to a single layer in the TCP/IP protocol suite?