

# I226 Computer Networks

## Chapter 1 Introduction

### (Review Questions)

*Each chapter includes a few questions that are designed to help you to revise your first-level understanding of the slide material presented in the lecture.*

1. Explain the following four types of communications; unicast, multicast, broadcast, and anycast.
2. Explain the following three communication mode with examples; full-duplex, half-duplex, and simplex.
3. Give three major topologies used in LAN, and explain the characteristics of each topology.
4. How many links are required to form a  $n$ -node network for the following four types of topologies: complete, bus, star, and ring?
5. What is the “switching”? Give a brief description of the concept of this technology?
6. Explain the packet switching technology and circuit switching technology respectively.
7. Give some examples of following types of network applications and systems:
  - a) connection oriented and packet switching; and
  - b) connectionless and circuit switching.
8. What criteria are used to classify network systems into categories like LAN, WAN, and MAN?
9. The OSI reference model clearly defined the concepts of service, interface and protocol. Explain the meanings of these terms and draw a diagram to show the relationship between these words.
10. What is the protocol stack? How the technique called encapsulation is used in the protocol stacks?
11. Give the name and role of each layer in the OSI model.
12. Five layer model is frequently used as a practical model for networking systems. Describe the name, data unit, address and role for each of this five layer model.
13. Explain the service primitives in the OSI model. Draw a diagram that shows the relationship between the primitives.