Review Minggu ke-2B

1. If two end-systems are connected through multiple routers and the data-link level between them ensures reliable data delivery, is a transport protocol offering reliable data delivery between the two end-systems necessary? Why?

2. What are the five layers in the Internet protocol stack? What are the principal responsibilities of each of these layers?

3. What do encapsulation and decapsulation mean? Why are they needed in a layered protocol stack?

4. What is an application-layer message? A transport-layer segment? A network- layer datagram? A link-layer frame?

5. Which layers in the Internet protocol stack does a router process? Which layers does a link-layer switch process? Which layers does a host process?

6. You are in a university classroom and you want to spy on what websites your classmates are visiting with their laptops during the course lecture. If they all connect to the internet through the university's WiFi network, what could you do?

7. What is the difference between a virus and a worm?

8. Describe how a botnet can be created, and how it can be used for a DDoS attack.

9. Suppose Alice and Bob are sending packets to each other over a computer network. Suppose Trudy positions herself in the network so that she can capture all the packets sent by Alice and send whatever she wants to Bob; she can also capture all the packets sent by Bob and send whatever she wants to Alice. List some of the malicious things Trudy can do from this position.

10. Early versions of TCP combined functions for both forwarding and reliable delivery. How are these TCP variants located in the ISO/OSI protocol stack? Why were forwarding functions later separated from TCP? What were the consequences?