

EL-GY 5373 Online Quiz B

I. Answer True or False to the following questions:

- IP Five-Tuple is used to identify the uniqueness of each IP communication session. It contains source IP address, source port number, destination IP address, destination port number, and Protocol Type five elements.
a) True b) False
- In the system kernel, Socket is a new protocol layer added to have TCP/IP protocol suite matching the open system interconnection (OSI) model.
a) True b) False
- In CSMA/CD, a frame transmission could stop before the last bit is sent out.
a) True b) False
- CSMA/CD always works no matter which frame size is in use to send data.
a) True b) False
- ARP (Address Resolution Protocol) is used to resolves a domain name to the corresponding IP address.
a) True b) False

II. Select ALL CORRECT answers for the following questions:

1. The link-state algorithm in Chapter 5 has the following properties:
 - a) it requires the source node to know the costs between every pair of adjacent nodes in the graph
 - b) after the k th iteration, the least-cost paths are known to k nodes
 - c) it requires the source node exchanging distance information with its neighboring nodes to determine the optimal routes to all other nodes
 - d) it determines the shortest path from the source node to all other nodes
2. The ICMP protocol runs
 - a) directly on top of IP
 - b) on top of UDP
 - c) on top of TCP
 - d) over none of the protocols above
3. Suppose an application generates data chunks of 60 bytes every second, and each chunk gets encapsulated in a TCP segment with 20-byte header, and then encapsulated further in an IPv4 datagram. What percentage of each datagram will contain application data.
 - a) 80%
 - b) 40%
 - c) 60%
 - d) 20%