Week 4 Assignment 4

The due date is subject to the assignment instructions.  You are required to submit the assignment online.

1. Consider the hash table (1024 slots) with the hash function h(x) = 6x (mod 1024) and the segment size is 128 bytes. Consider the case of a segment in transmission and the corresponding TCP segment for the segments in the hash table.

(a) 20
(b) 24
(c) 27

2. The number of packets, P, is less than the number of slots in the hash table.

3. In the absence of collisions, the packets are sent to the transport layer by the network module.

(a) 40
(b) 50
(c) 60
(d) 70

4. The transport layer sends a dynamic adjustment buffer allocation for the segments and the transport layer uses the transport layer's buffer allocation to the segments.

(a) flow control
(b) congestion control
(c) reliability
(d) congestion avoidance

5. The transport layer's buffer allocation is implemented to use the upper layer's buffer allocation.

(a) 20
(b) 40
(c) 60
(d) 80

6. The congestion in the network is handled by the TCP algorithm.

(a) decreases sending rate exponentially
(b) increases sending rate exponentially
(c) decreases sending rate linearly
(d) increases sending rate linearly

7. The TCP segment's window size is 2000 bytes.

(a) 2000
(b) 4000
(c) 6000
(d) 8000

8. The TCP segment's window size is 256 bytes.

(a) 256
(b) 512
(c) 768
(d) 1024