

1. In the context of the Dynamo Key Value Store, which of the following configuration works best for a system that experiences a lot of write operations and few read operations? Why?
 - (a) $W=1 ; R=10$
 - (b) $W=10 ; R=1$
2. Consider a system with three network nodes, and the following statements concerning events occurring on the nodes. The position in the vector clocks (VC) correspond to nodes A, B, C in this order.
 - Event 1: node A receives message m_i from node B.
 - Statement 1: After Event 1, node A's VC is $[4,5,5]$.
 - Event 2: node B sends message m_j to node A.
 - Statement 2: After Event 2, node B's VC is $[1,5,3]$
 - Event 3: node C sends message m_k to node A.
 - Statement 3: After Event 3, node C's VC is $[1,4,7]$.
 - Event 4: node A receives message m_h from node C.
 - Statement 4: After Event 4, node A's VC is $[3,3,5]$.

Indicate T (true) or F (false) next to the following statements and motivate each response.

(a) m_i and m_j are the same message

(b) m_k and m_h are the same message

(c) Node C sends more than one message to node A

(d) Node B sends at least five messages to node A

(e) Statement 1 and Statement 2 refer to concurrent events.

(f) Statement 3 and Statement 4 refer to concurrent events.