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1) — processing refers to the ability to process & analyze data "at-rest" where as — processing refers to ability to process & analyze data "in motion".

- a. Batch, Stream
- b. Stream, Batch
- c. Batch, Reactive
- d. Stream, Proactive

2) Dstream are — representing a stream of data.

- a. Batches of RDDs
- b. Sequence of RDDs
- c. Operations on RDDs
- d. None of them

3. MQTT protocol implements a — communication pattern

- a. client/server
- b. master/slave
- c. publish/subscribe
- d. None



4. The processes or servers within Kafka that process the messages are known as — where as the processes that publish messages into a topic in Kafka are known as —

- ☒ a. brokers, producers
- ☐ b. consumers, brokers
- ☐ c. brokers, consumers
- ☐ d. consumers, producers

5. In the queue-messaging system in Kafka, each message is received by —

- ☐ a. All the consumers
- ☒ b. Only one "
- ☐ c. " " producers
- ☐ d. All " "

6. A topic with replication factor  $N$ , tolerates upto — server failures

- ☐ a.  $N$
- ☒ b.  $N-1$
- ☐ c.  $N+1$
- ☐ d.  $N/2$



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7. Select the benefits of moving data centers to the network edge.

- ☒ a. facilitate lower latency
- ☒ b. Reduce the cost of data transmission
- ☐ c. Provide large storage capacity
- ☒ d. Enhance security.

8. Cassandra uses a \_\_\_\_\_ to cache incoming writes in \_\_\_\_\_ memory.

- ☐ a. SS Table
- ☒ b. Memtable
- ☐ c. Bloom filter
- ☐ d. tombstone.

9. Match the following.

Properties

X: Consistency

Y: Partition

Z: Availability

- tolerance

Statements

- 1. All nodes see same data at any time, or reads return latest written



value by any client.

2. the system allows operations all the time, & operations return quickly

3. the system continues to work in spite of network partitions

a. X-1, Y-2, Z-3

b. X-3, Y-2, Z-1

c. X-2, Y-3, Z-1

☒ d. X-1, Y-3, Z-2

10. "If any replica is down, the coordinator writes to all other replicas, & keeps the write locally until down replica comes back-up".

WOF does this stmt describe in the context of Cassandra?

☒ a. Hinted Handoff mechanism

b. Write-back mechanism

c. Rack-awareness mechanism

d. None.