

Started on Tuesday, 4 November 2025, 1:07 PM**State** Finished**Completed on** Tuesday, 4 November 2025, 1:09 PM**Time taken** 2 mins 12 secs**Marks** 4.00/5.00**Grade** 80.00 out of 100.00**Question 1**

Complete

Mark 1.00 out of 1.00

A ClusterIP Service routes requests among multiple pods. Which component actually implements the load balancing?

- ☒ a. kube-proxy
- ☐ b. kube-scheduler
- ☐ c. etcd
- ☐ d. kube-apiserver

Question 2

Complete

Mark 1.00 out of 1.00

If a NetworkPolicy is applied that allows only ingress from pods with label role=frontend, what happens to all other ingress traffic?

- ☒ a. It is denied because Kubernetes enforces a "default deny" once any policy exists.
- ☐ b. It depends on the CNI plugin.
- ☐ c. It is rerouted through kube-proxy.
- ☐ d. It is ignored by the policy and allowed.

Question 3

Complete

Mark 0.00 out of 1.00

When a container in a pod repeatedly crashes and Kubernetes continuously restarts it, which field determines the interval before each retry?

- ☐ a. backoffLimit in CrashLoopBackOff
- ☐ b. terminationGracePeriodSeconds
- ☒ c. restartPolicy
- ☐ d. livenessProbe.initialDelaySeconds

Question 4

Complete

Mark 1.00 out of 1.00

When updating a DaemonSet with the RollingUpdate strategy, what determines how pods are replaced?

- ☐ a. The new DaemonSet pods are deployed first, then old pods are deleted.
- ☐ b. The update order is random.
- ☒ c. One node is updated at a time; the next only starts after the previous is ready.
- ☐ d. All nodes are updated simultaneously if they have capacity.

Question 5

Complete

Mark 1.00 out of 1.00

Which statement best describes how etcd ensures Kubernetes' data consistency?

- ☐ a. It uses a simple master-slave replication model.
- ☒ b. It uses the Raft consensus algorithm for leader election and log replication.
- ☐ c. It uses eventual consistency similar to NoSQL databases.
- ☐ d. It uses transactional SQL ACID compliance through SQLite backend.