

PRACTICE QUESTIONS

Linux Foundation / CNCF

CKAD

Certified Kubernetes Application Developer

SHARED BY [u/Gentle-Pixel-6429](#) on aiexamcerts

EDITION	Free Set 1
QUESTIONS	10
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EXAM	Linux Foundation / CNCF CKAD, Certified Kubernetes Application Developer

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10 practice questions for the Linux Foundation / CNCF CKAD exam, Certified Kubernetes Application Developer, each followed by its answer and a short explanation. More free sets and the full practice exam: www.aiexamcerts.com/linux-foundation-cncf/ckad. Spotted a mistake? Email support@aiexamcerts.com with the exam code CKAD and the question number.

1. Which restartPolicy values are valid in the pod template of a Job?

- A Always only
- B Always or Never
- C OnFailure or Never
- D Any value, because Jobs ignore the field

Answer: C

Job pods must use OnFailure or Never, and the API server rejects Always for a Job. OnFailure restarts only failed containers in place, while Never leaves the failure to the Job controller, which creates a new pod. The Always option is tempting because it is the default for Deployments, but it is invalid for batch work.

2. The probe type that decides whether a container should be restarted because it has entered an unrecoverable state is the _____ probe.

Answer: liveness (also accepted: livenessProbe)

The liveness probe tells the kubelet when a container is stuck or dead, and a failure triggers a container restart according to the pod restartPolicy. Readiness governs traffic routing and startup governs slow boot checks. The question asks specifically for the restart-triggering probe.

3. You need to roll back a Deployment named web to the revision before the most recent change. Which command performs the rollback?

- A `kubectl rollout restart deployment/web`
- B `kubectl scale deployment/web --replicas=0`
- C `kubectl apply --prune -f web.yaml`
- D `kubectl rollout undo deployment/web`

Answer: D

`kubectl rollout undo` returns the Deployment to its previous revision when no revision flag is given. `kubectl rollout restart` only triggers a new rollout of the current template and does not revert anything. The `kubectl apply --prune` option would re-apply a file rather than roll back history, which is a different operation.

4. A readinessProbe that fails on one pod removes that pod's address from the endpoints of every Service that selects it until the probe passes again.
- A True
 - B False

Answer: A (True)

Readiness determines whether a pod receives traffic, so a failing pod is excluded from Service endpoints. The pod keeps running and is not restarted. When the probe succeeds again the address is added back.

5. Which two statements about Kubernetes Secrets are accurate by default? (Choose two.)
- A Secret values are stored base64 encoded, which is not encryption
 - B Secrets are encrypted at rest in etcd unless an EncryptionConfiguration is set
 - C A Secret can be mounted as a volume or exposed as environment variables
 - D Updating a Secret automatically restarts every pod that uses it
 - E Secrets must be created in the kube-system namespace

Answer: A, C

Secret data is base64 encoded, which is an encoding rather than protection, and it can be consumed as volumes or environment variables. Encryption at rest for Secrets is off unless the API server is given an EncryptionConfiguration. Updated Secrets do not restart pods, and Secrets can live in any namespace.

6. A Deployment must stop all old pods before any new pods start, because the old and new versions cannot run together. Which strategy type should be set?
- A Recreate
 - B RollingUpdate with maxSurge set to 25 percent
 - C OnDelete
 - D Canary

Answer: A

The Recreate strategy terminates all existing pods before creating pods for the new revision, which gives a brief downtime window. RollingUpdate overlaps old and new pods by design, so it does not meet the requirement. OnDelete is a StatefulSet update strategy, and Canary is not a built-in Deployment strategy type.

7. A pod keeps crashing and you need the logs from the previous, terminated container instance. Which command shows them?

A `kubectl logs pod/api --follow`
B `kubectl describe pod/api --logs`
C `kubectl top pod/api --containers`
D `kubectl logs pod/api --previous`

Answer: D

The `--previous` flag on `kubectl logs` returns the output of the last terminated instance of the container, which is where the crash output is kept. The `--follow` flag streams the current container and would not show the earlier crash. `kubectl top` reports CPU and memory use and does not display logs.

8. To stop a container process from running as UID 0 and make the kubelet refuse to start a root container, set the securityContext field _____ to true.

Answer: runAsNonRoot

`runAsNonRoot`, set at the pod or container securityContext, makes the kubelet verify that the image runs as a non-zero UID and refuse to start it otherwise. It is distinct from `runAsUser`, which chooses a UID but does not enforce the check. The answer is the exact field name `runAsNonRoot`.

9. An Ingress must route requests whose path is exactly `/healthz` to one backend and every path under `/api/` to another. Which pathType best matches the exact-path rule?

A Prefix
B Glob
C Regex
D Exact

Answer: D

The Exact pathType matches only the literal path, so `/healthz` matches while `/healthz/extra` does not. Prefix matches on path segments and would also catch longer paths. Glob and Regex are not defined Ingress pathType values.

10. An application needs a persistent volume for each replica with a stable name and storage that follows the pod across restarts. Which workload type is designed for this?
- A Deployment with a single shared emptyDir
 - B Job with a restartPolicy of Never
 - C StatefulSet with volumeClaimTemplates
 - D CronJob that runs every minute

Answer: C

StatefulSets give pods stable names such as web-0 and create one PersistentVolumeClaim per replica from volumeClaimTemplates. A Deployment with an emptyDir loses data when the pod is removed. Jobs and CronJobs run finite work and do not give stable storage identity.