Q1. How can you see all running Docker containers?

   a. docker list

   b. docker ps

   c. docker show

   d. docker images

Correct Answer: b. docker ps

Explanation: `docker ps` shows all running Docker containers. To see all containers including stopped ones, use `docker ps -a`.

Q2. How do you scale a deployment to 5 replicas?

   a. kubectl scale deployment myapp --replicas=5

   b. kubectl resize myapp 5

   c. kubectl deploy --scale=5

   d. kubectl set replicas myapp=5

Correct Answer: a. kubectl scale deployment myapp --replicas=5

Explanation: The correct command to scale a deployment to a specific number of replicas is `kubectl scale deployment myapp --replicas=5`.

Q3. In a Deployment YAML, what does spec.template define?

   a. The build script

   b. The node selector

   c. The pod configuration

   d. A new container registry

Correct Answer: c. The pod configuration

Explanation: `spec.template` defines the pod template used by the Deployment, including containers, volumes, and other pod-level settings.

Q4. What command copies files from host to container image in a Dockerfile?

   a. ADD

   b. MOVE

   c. Both COPY and ADD

   d. COPY

Correct Answer: c. Both COPY and ADD

Explanation: `COPY` and `ADD` both copy files from host into the image. `ADD` has more features

like auto-extraction of tar files.

Q5. What does kubectl describe command do?

    a. Deletes the pod

    b. Shows detailed information about a resource

    c. Shows logs

    d. Outputs YAML format

Correct Answer: b. Shows detailed information about a resource

Explanation: `kubectl describe` provides detailed information and status about a Kubernetes resource.

Q6. What does the -d flag in docker run -d stand for?

    a. Delete

    b. Daemon (background mode)

    c. Debug

    d. Detach disk

Correct Answer: b. Daemon (background mode)

Explanation: `-d` runs the container in detached mode (in the background).

Q7. What does the kubectl get pods command do?

    a. Creates pods

    b. Lists all pods

    c. Modifies pods

    d. Deletes all pods

Correct Answer: b. Lists all pods

Explanation: `kubectl get pods` lists all the pods running in the cluster.

Q8. What is a Docker container?

    a. A virtual machine

    b. A GitHub repository

    c. A hardware virtualization platform

    d. A lightweight, standalone executable package

Correct Answer: d. A lightweight, standalone executable package

Explanation: A Docker container packages code, libraries, and dependencies into a single unit for software execution.

Q9. What is the default base image format in a Dockerfile?

a. ENTRYPOINT

b. FROM

c. ENV

d. WORKDIR

Correct Answer: b. FROM

Explanation: `FROM` specifies the base image used to build the Docker image.

Q10. What is the default service type in Kubernetes?

a. ExternalName

b. ClusterIP

c. LoadBalancer

d. NodePort

Correct Answer: b. ClusterIP

Explanation: `ClusterIP` is the default service type and exposes the service on an internal IP.

Q11. What is the function of a Kubernetes Service?

a. Create containers

b. Deploy apps

c. Monitor logs

d. Expose pods to the network

Correct Answer: d. Expose pods to the network

Explanation: A Kubernetes Service enables network access to a set of pods.

Q12. What is the purpose of a ReplicaSet?

a. To expose services

b. To ensure a specified number of pod replicas

c. To store pod logs

d. To monitor API calls

Correct Answer: b. To ensure a specified number of pod replicas

Explanation: A ReplicaSet maintains the desired number of pod replicas running at all times.

Q13. What is the role of a Pod in Kubernetes?

a. The smallest deployable unit

b. To execute kubectl commands

c. To store images

d. To control replication

Correct Answer: a. The smallest deployable unit

Explanation: A Pod is the smallest unit in Kubernetes that can be deployed and managed.

Q14. Which command deletes a Kubernetes resource from a YAML file?

a. kubectl drop -f

b. kubectl remove

c. kubectl purge -f

d. kubectl delete -f

Correct Answer: d. kubectl delete -f

Explanation: `kubectl delete -f` deletes resources defined in the specified YAML file.

Q15. Which command is used to build a Docker image?

a. docker build

b. docker run

c. docker make

d. docker image

Correct Answer: a. docker build

Explanation: `docker build` is used to build a Docker image from a Dockerfile.

Q16. Which Docker command stops a running container?

a. docker stop

b. docker delete

c. docker kill

d. docker pause

Correct Answer: a. docker stop

Explanation: `docker stop` stops a running container gracefully.

Q17. Which file defines the steps to build a Docker image?

a. Makefile

b. Containerfile

c. Dockerfile

d. Buildfile

Correct Answer: c. Dockerfile

Explanation: `Dockerfile` contains instructions to build a Docker image.

Q18. Which file format is used for Kubernetes configuration?

    a. .json only

    b. .conf

    c. .ini

    d. .yml or .yaml

Correct Answer: d. .yml or .yaml

Explanation: Kubernetes uses `.yml` or `.yaml` for configuration files.