**Docker:**

Note: Question 1 to 9 each question is 1 marks, Question no. 10, 11 is 5 Marks while Question 12 is for 6 marks.

### Write a command to stopping and restarting a Docker container?

### Ans: To stop $docker container stop container\_id

### To restart $docker container restart container\_id

### Write a command to create a Docker image?

### Ans: ways to create docker images: using docker commit command

### Using Dockerfile

### Docker run –name container\_name -it imagename

### Write a command to view all the running Docker containers?

### Ans: $docker ps

### What command is used for running images as a container? Ans: $docker run image\_name

1. What is a cloud-hosted service of Docker providing registry capabilities for public and private content?  
   Ans: docker hub
2. What is a template used for describing a build of an image?

Ans: DockerFile

### Multiple containers running on a single machine all share the same resources such as the operating system kernel for instant boot and efficient utilization of RAM. True or False? Ans: True

1. What command is used for remove all stopped containers, unused networks, build caches, and dangling images?  
   Ans: $docker system prune This removes the unused data, all the unused containers, networks, images etc.,
2. What command is used for running images as a container?  
   Ans: $docker run image\_name
3. Explain what are Dockerfiles?

Ans: It is nothing but a simple text file that consists of instructions to build docker images.

### List the most commonly used instructions in Dockerfile?

### Ans: \* FROM \* ENTRYPOINT

### \* COPY \* ADD

### \* RUN

### \* CMD

### Explain Docker lifecycle of Docker Container?

### Ans:

### Create container: Create a container to run it with required images.

### $docker create --name container\_name image\_name

### Run docker container: Run the docker container with the required image and command. -d flag is used for running container in background.

### $docker run -it -d --name container\_name image\_name bash

### Pause container and unpause: Used to pause the process running inside the container, unpause to resume the process

### $docker pause container\_id

### Unpause: $docker pause container\_id

### Start container and stop container: Start the container if it is in stopped state, stop the container if it is in running state

Start: $docker start container\_id

### Stop: $docker stop container\_id

### Restart container: used to restart it from the beginning.

### $docker restart container\_id

### Kill container: to kill the containers

### $docker kill container\_id

### Destroy container: used to destroy the container which is in stopped state

### $docker rm container\_id

### 

### Kubenetes:

### Each Question is 1 marks.

1. **At its core, Kubernetes is a platform for:**

### Provisioning machines (similar to Puppet, Ansiblee

### **Running and scheduling container applications on a cluster.**

### Packaging software in containers

**2) Which of the following are core Kubernetes objects ?**

A. Pods

B.Volumes

C.Services

**D.All of them**

**3)Kubernetes Network proxy runs on which node ?**

A. Master Node

B.Worker Node

C.CIDR Node

**D.Both A & B**

**4) runs on each node and ensures containers are running in a pod.**

A. Etcd

B.Pod

**C.Kubelet**

D.Scheduler

**5) Which of them is a Kubernetes Controller ?**

A. ReplicaSet

B.Deployment

C.Rolling Updates

**D.Both A & B**

**6)....................... are the Kubernetes controllers.**

A. Replicaset

B.Deployment

C.Namespace

**D.Both Replicaset & Deployment**

**7) Kubernetes is the type of cluster management software.**

**A. True**

B.False

**8) Which of the following are the components of Kubernetes Master Machine?**

A. Scheduler

B.Controller Manager

C.API Server & etcd

D.All of the above

**9) Kubernetes API currently supports ........... type of selectors.**

A. Set-based selectors

B.Equality-based selectors

**C.both Set-based & Equality-based selectors**

D.None of the above

**10) What are the some important functionalities of a Namespace in Kubernetes?**

A. Namespaces help pod-to-pod communication using the same namespace.

B.Namespaces provide logical separation between the teams and their environments.

C.Namespaces are virtual clusters that can sit on top of the same physical cluster.

**D.All of the above**

**11) There are ............ types of Pods in kubernets?**

**A. 2**

B.3

C.4

D.6

**12) GKE stands for \_\_\_\_.**

A. Google Cluster Engine

**B. Google Kubernetes Engine**

C. Google Container Engine

D. None of the above

**13) Which of the following commands allow you to validate a cluster created with Kubernetes operations?**

A. kubectl validate cluster

**B. kubeadm validate cluster**

C. kops validate cluster

D. None of the above

**14) What is the default range of ports used to expose a NodePort service?**

**A. 30000-32767**

B. 500-1000

C. 60000-65536

D. 1024-32767

**15) Which of the following commands gives you detailed info on a Pod?**

**A. kubectl describe pods**

B. kubectl get pods -vvv

C. kubectl get pods –detail

D. kubectl pods inspect

**16) What is the default protocol for a Service?**

**A. TCP**

B. UDP

C. HTTP

D. SSH

**17) Which of the following is true about Pods and IP addressing?**

A. Pods only work with IPv6 addresses

B. All containers in a Pod get unique IP addresses

C. An external DHCP server is required for Pod IP addressing

**D. All containers in a Pod share a single IP address**

**18) In Kubernetes, a node is:**

A. A tool for starting a kubernetes cluster on a local machine  
**B. A worker machine**  
C. A machine that coordinates the scheduling and management of application containers on the cluster

**19) What can you deploy on Kubernetes?**

A. Containers  
B. Virtual Machines  
C. System Processes (like sshd, httpd)

20) **We have a node named nodeA, and we want to add a tainting effect to it, which command we will use**

a. kubectl taint nodes nodeA key:=NoSchedule

b. kubectl taint node key:=NoSchedule

c. kubectl taint nodes nodeA

d. All of the Above