echo 'source <(kubectl completion bash)' >>~/.bashrc

echo 'alias k=kubectl' >>~/.bashrc

either logout and login after above change or perform source ~/.bashrc

*Question 1*

*1. Create a Deployment  with the following spec:*

*- use the image nginx and name the deployment as nginx.*

*- image should be tag 4.*

*- label the deployment app: frontend.*

*Question 2:*

*Create a Pod with following spec.*

*- the pod should mount a volume under /opt/xxxxx*

*- the persistent volume claim should use a physical volume which last for the lifetime of the pod.*

*Question 3:*

*There is a pod with an errored container.*

*- find the pod with error*

*- troubleshoot the error and make sure the container in the pod is up and running.*

*Question 4:*

*Create a pod with nginx image and which requests 300Mi cpu and memory as 256Mi It should be placed on node01.*

*Question 5:*

*Expose the deployment webapp in namespace exam*

*- the deployment should be accessible within the cluster.*

*- the application should run on port 8080.*

*Question 6:*

*Identify the pod with high CPU utilization and redirect the output to a file.*

*- The file format should be "namespace/po*

*Question 7:*

*There is a problem in a pod identify the pod and redirect the pod related error events to a file in /opt/.kus0201.txt*

*Question 8*

*A deployment has issues troubleshoot to bring all pods into Running state.*

*Question 9:*

*Create a deployment from nginx1.16 image named kusoo1 , upgrade the deployment to nginx version 1.17 and rollback the deployment to the recent version*

*Question 10:*

*Create a pod with following specs.*

*- it should have nginx as image and  mount a secret under /etc/super-secret*

*- it should setup environment variable ENVIRONMENT with the value of the configmap my-config.*

*- create my-config configmap with specs var1=val2.*

*- create the needed secret with the specs given in file /opt/kus001.txt*

*Question 1:*

*Taint node01 with given key = tier value= frontend effect=NoSchedule .*

*Create a pod with following specs.*

*- pod should mount a given pvc under /etc/kus201.txt*

*- pod should be scheduled on node01.*

*Question 2:*

*A given deployment is running deployment/xyz. Store the deployment details in json or yaml format in file /opt/CKAD0003/kus20010.txt*

*Question 3:*

*Create a namespace my-namespace. Deploy a pod in this namespace with capability to run system time as root.*

*image=nginx*

*Question 4:*

*There are 2 pods, db and proxy. There is a third pod webapp. You have to allow traffic to proxy and db pods only from webapp pod. All network policies are in place and do not delete/modify any network policies to achieve the desired result.*

*Question 5:*

*Create a job with following specs:*

*- job should use the image "some custom image"*

*- it should terminate if not executed within 60 seconds.*

*Question 6:*

*Create a pod with following specs:*

*- label it as app=v1 .*

*- set environment variable as "some env variable"*

*Question 7:*

*There is a deployment running. update the deployment with following spec:*

*- change replica set to 3.*

*- run the deployment as service account "myuser*

*- create the SA if not exists.*

*Question 8:*

*Create a pod with a main container and a sidecar container with following specs.*

*- main container should run the image nginx.*

*- main container should run the command "some long command with loop to generate logs"*

*- sidecar container should run the image busybox.*

*- sidecar container should mount a configmap with given spec under file /opt/kusl0210.txt.*

*- sidecar container should be able to read the logs from main container and process it.*

*Create a Pod with main container busybox and which executes this “while true; do echo ‘Hi I am from Main container’ >> /var/log/index.html; sleep 5; done” and with sidecar container with nginx image which exposes on port 80. Use emptyDir Volume and mount this volume on path /var/log for busybox and on path /usr/share/nginx/html for nginx container. Verify both containers are running.*

*Question 9:*

*Cronjob with given specs. the job should exit if not completed within 20 seconds.*

*Question 10:*

*Create a namespace named finance and create a deployment named kusl0229 using image nginx and it should have 7 replicas running*

LAB Environment:

NODE-1 is the jump server and we need to change the context to other clusters based on the question. Total 6 clusters.

Qustions I left and incorrect:

1. Creating a network policy between the PODs to stop the traffic between the PODs. I left this question as its taking much time.
2. There is an existing deployment which I need to edit the and add an sidecar busybox container . This is possible by using kubectl edit deployment which will open the file. But I was unable to add the sidecar due to time constraint.

Exam Questions:

1. Backed up ETCD database and restore to a different location as specified in the command. Question have the location of CA file, CERT File and CA file.

ETCDCTL is not installed. I have installed using apt install etcdctl. I used etcdctl help command to understand the switches and created backup and restore.

1. Create a deployment and expand the replicas as requested.
2. Find a POD with a particular label and also find which pod has high cpu. Copy pod name to a file.
3. Create a volume using hostpath and mount with a pvc.
4. 17th question is the last question to resolve why a node is in not ready. It carries 13% weightage. The kubelet service need to be restarted in the node.
5. Expose a service for deployment and curl it.
6. Assign label to a pod and make it run on the node which has that label. So you need to describe node to find which node has the requested label.
7. Upgrade the cluster to 1.18 to 1.19. Only the master not the nodes. No Kubeadm exists. I need to install kubeadm using apt install kubeadm-1.19.0-00 and perform kubeadm upgrade plan and apply. Later also upgraded kubelet as well.
8. Expose a pod on certain nodeport and curl it.

Will update the rest once I remember:

<https://prabhatsharma.in/blog/cka-practice-test-1/>

<https://prabhatsharma.in/blog/cka-practice-test-2/>