

This preparation consists of 5 sections of exercises spread out over five days:

Section 1:

- Core Concepts - 13%
- Multi-Container Pods - 10%

Section 2:

- Pod Design - 20%

Section 3:

- Configuration - 18%

Section 4:

- Observability - 18%

Section 5:

- Services and Networking - 13%
- State Persistence - 8%

=== How To Answer the Questions ===

Answer using kubectl command on minikube/GKE/etc.

If you don't have access to a cluster, write commands down in a text file. For YAML files, write the commands to create them and the required edits.

Keeping a record of your responses and comparing them to the solutions will allow you to optimise your studying for the exam.

=== To emulate CKAD environment ===

On your computer open your terminal and your browser. No other applications should be open.

You can only have one terminal console open, but you can use multiplexers (i.e: tmux, GNU Screen)

On your browser, you have access to ONE tab only and you can ONLY access the following domains:

- <https://kubernetes.io/docs/> and its subdomains (this includes all available language translations of this page (e.g. <https://kubernetes.io/zh/docs/>))
- <https://github.com/kubernetes/> and its subdomains
- <https://kubernetes.io/blog/>

No other tabs may be opened and no other sites may be navigated to

=== Time Tracking ===

Track the time that you take in completing the sections.

The total of all the sections shouldn't take you longer than 2 hours to complete.

For each section, try to do the exercises in the recommend time or less. If you take longer, you will have less time to do the other sections.

Once you reach the limit of two hours, you are no longer able to continue doing the exercises.

=== Scoring ===

For the CKAD Exam, a score of 66% or above must be earned to pass.

I am not sure how the CKAD people score exercises exactly, but as a heuristic we can use the following to calculate the value of an individual exercise:

$$\text{exercise_value} = \text{percentage_value_section} / \text{number_of_exercises}$$

So for section 1 we have
- Core Concepts - 13%
- Multi-Container Pods - 10%

$$\begin{aligned}\text{percentage_value_section} &= 13\% + 10\% = 23\% \\ \text{number_of_exercises} &= 19\end{aligned}$$

$$\text{exercise_value} = 23/19 = 1,21$$

In total, all exercises should add up to 100%.