

**701-100.30q**

Number: 701-100  
Passing Score: 800  
Time Limit: 120 min



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**701-100**

**Linux Professional Institute DevOps Tools Engineer**

<https://www.gratisexam.com/>

## Exam A

### QUESTION 1

Which of the following `git` commands is used to manage files in a repository? (Choose two correct answers.)

- A. `git rm`
- B. `git cp`
- C. `git mv`
- D. `git move`
- E. `git copy`

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 2

What implications does container virtualization have for DevOps? (Choose two answers.)



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- A. Containers decouple the packaging of an application from its infrastructure.
- B. Containers require developers to have detailed knowledge of their IT infrastructure.
- C. Containers let developers test their software under production conditions.
- D. Containers complicate the deployment of software and require early deployment tests.
- E. Containers require application specific adjustment to the container platform.

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <http://anandmanisankar.com/posts/container-docker-PaaS-microservices/>

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### QUESTION 3

The file `index.php`, which is being maintained in a git repository, was changed locally and contains an error. If the error has not been committed to the repository yet, which of the following git commands reverts the local copy of `index.php` to the latest committed version in the current branch?

- A. `git lastver - index.php`
- B. `git revert - index.php`
- C. `git checkout - index.php`
- D. `git clean - index.php`
- E. `git repair - index.php`

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://git-scm.com/docs/git-revert>

### QUESTION 4

Which of the following statements are true about Jenkins? (Choose two correct answers.)

- A. Jenkins is specific to Java based applications.
- B. Jenkins can delegate tasks to slave nodes.
- C. Jenkins only works on local files and cannot use SCM repositories.
- D. Jenkins' functionality is determined by plugins.
- E. Jenkins includes a series of integrated testing suites.

**Correct Answer:** BE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 5

What happens when a merge conflict occurs in git? (Choose two correct answers.)

- A. The conflicting files remain unchanged in the local repository.

- B. Conflict markers are added to the files.
- C. A new branch containing the remote changes is created.
- D. The affected files are flagged as conflicting.
- E. The newest version is placed in the local repository.

**Correct Answer:** DE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 6**

Which Ansible modules can be used to change the contents of a file? (Choose three correct answers.)

- A. `lineinfile`
- B. `replace`
- C. `patch`
- D. `insert`
- E. `modify`

**Correct Answer:** ABC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 7**

What is the Puppet equivalent to an Ansible Playbook called?

- A. A Puppet Catalog
- B. A Puppet Playbook
- C. A Puppet Factsheet
- D. A Puppet Declaration
- E. A Puppet Manifest

**Correct Answer:** A

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 8

Which of the following Ansible tasks copies the file `example.txt` to a manage system?

- A. - `rsync:`  
    `src: example.txt`  
    `dst: /tmp/example.txt`
- B. - `copy:`  
    `src: example.txt`  
    `dest: /tmp/example.txt`
- C. - `retrieve:`  
    `src: example.txt`  
    `dest: /tmp/example.txt`
- D. - `cp:`  
    `source: example.txt`  
    `dst: /tmp/example.txt`
- E. - `transfer:`  
    `src: example.txt`  
    `dest: /tmp/example.txt`

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 9

Which of the following commands lists the cookbooks available on a Chef server?

- A. `kitchen cookbook list`
- B. `chef-client cookbook list`
- C. `chef-server cookbook list`
- D. `chef-solo cookbook list`
- E. `knife cookbook list`

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 10

An Ansible variable file contains the following content:

```
myapp:  
option1: one
```



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Which of the following strings can be used to reference the defined variable? (Choose two correct answers).

- A. `myapp(option1);`
- B. `option1@myapp`
- C. `myapp['option1']`
- D. `myapp.option1`
- E. `myapp{{option1}}`

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 11

What statement is true regarding the Swarm service created by the following command?

```
docker service create --name myweb --network webnet --mode global nginx
```

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- A. It runs exactly one time in the Swarm and cannot be scaled.
- B. It runs exactly once on each node in a Swarm.
- C. It runs on one node by default and can be scaled to an arbitrary number of replicas.
- D. It runs on all nodes which provide the network `webnet`.
- E. It runs only on those nodes which support the network type `global`.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 12

Which of the following mechanisms are used for service discovery in a container environment? (Choose two correct answers.)

- A. The container platform offers a command like `docker service discover` which should be run within a container.
- B. The container platform sets environment variables containing service information within the containers.
- C. The container platform lists localhost ports assigned to containers in each container's `/etc/services` file.
- D. The container platform mounts the sockets for all available services into the container's file systems.
- E. The container platforms maintains DNS records which point to containers offering a specific service.

**Correct Answer:** BE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 13

Which of the following commands lists the nodes in a Docker Swarm cluster?

- A. `docker-swarm listnodes`
- B. `docker engine ls`
- C. `docker node ls`
- D. `docker machine ls`
- E. `docker swarm nodes`

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://docs.docker.com/engine/swarm/manage-nodes/>

#### QUESTION 14

Which of the following container names could have been assigned automatically by Docker?

- A. docker-c000001
- B. 2.0.17.172
- C. container
- D. c0023817
- E. clever\_ritchie

**Correct Answer:** E

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference [https://docs.docker.com/v17.09/engine/userguide/networking/default\\_network/container-communication/](https://docs.docker.com/v17.09/engine/userguide/networking/default_network/container-communication/)

#### QUESTION 15

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Which elements exist on the highest level of the definition of every Kubernetes Objects? (Specify the name of one of the elements, without any values.)

**Correct Answer:** pod

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 16

How is a Docker container image retrieved from a Docker registry?

- A. Docker retrieves a ZIP archive which is extracted into the container's root file system.
- B. Multiple stacked images are retrieved and layered on top of each other.



- C. A flat hard disk image is downloaded once per container and mounted as the root file system.
- D. The registry merges all components of the image into one file which is shipped to Docker.
- E. The container is built from an ISO file along with a configuration for an unattended installation.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://www.ibm.com/developerworks/library/mw-1608-tost-trs/index.html>

### QUESTION 17

Given the following excerpt of a `Dockerfile`:

```
Run apt-get -y update && apt-get install -y fortunes && apt-get clean
```

Why are the multiple `apt-get` commands combined in one `RUN` statement instead of using multiple `RUN` statements?

- A. To prevent the commands from running in parallel because Docker executes all `RUN` statements in their own container at the same time.
- B. To ensure the execution order of the commands because Docker might evaluate the statements of a `Dockerfile` in any order.
- C. To avoid the creation of unnecessary images because Docker creates a new image for each `RUN` statement.
- D. To execute both commands in the same container instance and void Docker to reset the container to the original base image.
- E. To execute the `apt-get install` command only if the `apt-get update` command was successful because Docker does not check the success of `RUN` statements.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 18

Which of the following tasks are completed by `docker-compose down` when it is used with additional parameters? (Choose two correct answers.)

- A. Delete all volumes defined in the composer file.
- B. Delete all containers defined in the composer file.
- C. Delete all networks defined in the composer file.

- D. Delete all images used in the composer file from the Docker nodes.
- E. Delete all images built from the composer file from their registry.

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://docs.docker.com/compose/reference/down/>

#### QUESTION 19

The following command is issued on two docker nodes:

```
docker network create --driver bridge isolated_nw
```

Afterwards, one container is started at each node with the parameter `--network=isolated_nw`. It turns out that the containers can not interact with each other. What must be done in order to allow the containers to interact with each other? (Choose two correct answers.)

- A. Use a host network instead of a bridged network.
- B. Add the option `--inter-container` to the `docker network create` command.
- C. Start the containers on the same node.
- D. Change the `--network` parameter of `docker create` to `--network=isolated_nw,nofence`.
- E. Use an overlay network instead of a bridged network.

**Correct Answer:** CD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://docs.docker.com/v17.09/engine/userguide/networking/#bridge-networks>

#### QUESTION 20

If a `Dockerfile` references the container's base image without a specific version tag, which tag of that image is used to create the container?

- A. latest
- B. default
- C. current
- D. nightly

E. `lts`

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://docs.docker.com/engine/reference/commandline/build/>

#### QUESTION 21

A `Dockerfile` contains the statements:

```
COPY data/ /data/  
VOLUME /data
```

What happens when the resulting container is started without any additional volume configuration? (Choose two correct answers.)

- A. Files existing in `/data/` in the image are not available in the running container.
- B. Changes to files within `/data/` affect the Docker image and all other containers derived from it.
- C. Existing files from `/data/` in the image are copied to the new volume.
- D. An error is raised because `/data/` already contains data when the volume is mounted.
- E. A new volume is created and mounted to `/data/` within the new container.

**Correct Answer:** CE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 22

Which section of the Prometheus configuration defines which nodes are monitored?



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- A. scrape\_config
- B. targets
- C. rules
- D. listener
- E. nodes

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: [https://prometheus.io/docs/prometheus/latest/getting\\_star](https://prometheus.io/docs/prometheus/latest/getting_star)

### QUESTION 23

Which of the log messages below matches the following Logstash grok filter?

```
grok {  
  match => [ "message", "%{SYSLOGBASE} new node %{IPORHOST:node}" ]  
}
```

- A. Jun 30 00:36:49 headnode:  
new node 198.51.100.103 at clustermanager:12353
- B. Jun 30 00:36:49 headnode clustermanager[12353]: new node 198.51.100.103
- C. Jun 30 00:36:49 headnode clustermanager[198.51.100.103]: new node
- D. %{SYSLOG-FROM:headnode clustermanager[12353]} new node 198.51.100.103
- E. clustermanager[12353]: Jun 30 00:36:49 headnode new node 198.51.100.103

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 24

How does Prometheus gather information about monitored hosts and services?

- A. It implements the ICMP and SNMP protocols to ping and query remote services.
- B. It opens a webhook where monitored applications have to submit various metrics.

- C. It uses HTTP to retrieve JSON encoded metrics from the monitored objects.
- D. It queries a relational database for metrics written to the database by monitored applications.
- E. It runs scripts on the Prometheus server which perform tests and return various metrics.

**Correct Answer:** E

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference <https://dzone.com/articles/monitoring-with-prometheus>

#### QUESTION 25

Which of the following statements is true about load balancers?

- A. Load balancers are a security risk because they obfuscate the origin of connections.
- B. Load balancer help to improve the availability and scalability of a service.
- C. Load balancers are a single point of failure because they cannot be deployed redundantly.
- D. Load balancer require access to private keys in order to be able to forward HTTPS traffic.
- E. Load balancers cannot use connection content, such as HTTP cookies, to route traffic.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 26

Which security issues exist for most publicly available Vagrant boxes? (Choose three correct answers.)

- A. They accept SSH logins from the user `vagrant` with the password `vagrant`.
- B. They accept SSH logins from the user `vagrant` with a publicly available SSH key pair.
- C. The vagrant user can use `sudo` to obtain root privileges without additional authentication.
- D. Their whole file system, including configuration files, is writable by any user, including `vagrant`.
- E. They export their file system via NFS with full write permissions without any additional restrictions.

**Correct Answer:** ABC

**Section:** (none)

### Explanation

#### Explanation/Reference:

Reference <https://www.vagrantup.com/docs/boxes/base.html>

#### QUESTION 27

What must be the first line of a plain text user-data configuration containing YAML configuration for cloud-init?

- A. `cloud-config:`
- B. `--- cloud-config`
- C. `#!/usr/bin/cloud-init`
- D. `[cloud-config]`
- E. `#cloud-config`

**Correct Answer:** E

**Section:** (none)

### Explanation

#### Explanation/Reference:

Reference <https://cloudinit.readthedocs.io/en/latest/topics/examples.html>

#### QUESTION 28

How is cloud-init integrated with a managed system image?

- A. cloud-init provides the `cloud-init-worker` command which has to be invoked periodically within the running instance.
- B. cloud-init provides systemd units which must be included in several stages of the booting process of the instance.
- C. cloud-init provides its own startup mechanism which replaces the instance's original init system, such as systemd.
- D. cloud-init provides a Linux kernel module that must be included and loaded in the instance's initramfs.
- E. cloud-init provides the `cloud-init-daemon` service which is launched during startup and keeps the instance in sync with the desired configuration.

**Correct Answer:** D

**Section:** (none)

### Explanation

#### Explanation/Reference:

#### QUESTION 29

Which of the following elements are presents in a Vagrant box file? (Choose two correct answers.)

- A. A Vagrant guest configuration file that is used to create instances of the box.
- B. Configuration files for provisioners such as Ansible.
- C. The installer for the Vagrant version which is required to run the box.
- D. A metadata file describing the box and its requirements.
- E. A base file system image in a format supported by the provider of the box.

**Correct Answer:** BD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 30

Which of the following properties apply to a content delivery network? (Choose three correct answers.)

- A. CDNs require all elements of a web site to be served by the same CDN.
- B. CDNs can stream large media files such as movies or music to clients.
- C. CDNs are present in multiple locations to serve content close to clients.
- D. CDNs serve huge numbers of clients with high bandwidth and low latency.
- E. CDNs forward all requests to a backend server and never store content locally.

**Correct Answer:** CDE

**Section:** (none)

**Explanation**

**Explanation/Reference:**



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