***Simplilearn-Test1 30 Questions 45 Mins***

**1. Which statement best describes the goal of DevOps?**

Establish an environment where change management does not control application releases

**Ans: Establish an environment to release more reliable applications faster**

Establish an environment where application development performs all the operation tasks

Estalish an environment where the release of applications is valued more than its quality

2. You have a stable Devops team where members are working together for several sprints. Recently, the team is having trouble in delivering a new version of the product. They are unable to deliver upgrades in time with a two week sprint. How can you overcome this challenge?

Extend the sprint to four weeks to give the team more time

Expect that the team will learn from the mistakes and fix the problem in the next cycle

**Ans: Shorten the sprint to achieve smaller targets and find the problem quickly**

Focus only on few limited changes that are viable to be delivered in two weeks

3. The development of new software and IT services consist of functional and non-functional requirements. At which stage of the development process should the non-functional requirements be addressed, to be able to deliver software and services faster and better?

**Ans: From the initiation stage of the software development**

After the functional acceptance test by the customer representatives

Along with the implementation of continuous delivery

The non-functional requirements are of no concern to the customers

4. In Git, if you want to make your local repository reflect the changes made in a remote (tracked) repository, you should run the pull command.

**True**

5. You have a local repository, but the team members have pushed the changes into the remote repository. Which Git operation would you use to download those changes into your working copy?

Checkout commit export **Ans: pull**

**6. Which of the following is not a part of the data structure of a Git repository?**

**Ans: Body element** Branch pointer Commit object Head pointer

7. Which file can you configure to ensure that certain file types are not committed to the local Git repository?

ignore.git **ans: .gitignore**  gitignore.txt git.ignore

8. When can a single dash be used within a Git command?

**Ans: When using a single-character option**

When using a multi-character option

When issuing Git commands with multiple options

When referencing a Git alias

9. Which source code management plugin does Jenkins install by default?

Top of Form

Git Subversion Concurrent versions system **Ans**: **None of the above options**

10. Which environment variable do you optionally use to specify the folder in which the Jenkins configuration and runtime data are contained?

JENKINS\_ROOT M2\_HOME **Ans: JENKINS\_HOME** JAVA\_HOME

11. Which of the following is a source code management tool?

Jenkins Maven **Ans: Git** Hudson

12. What is the difference between continuous delivery and continuous deployment?

Continuous delivery is a manual task, while continuous deployment is an automated task.

**Ans:Continuous delivery has manual releases to production, while continuous deployment has releases automatically pushed to production.**

Continuous delivery includes all steps of software development life cycle, while continuous deployment may skip few steps such as validation and testing.

Continuous delivery means complete delivery of the application to customer, while continuous deployment includes only deployment of the application in customer environment.

13. What are the appropriate characteristics of Continuous delivery approach?

**A focus on cycle time reduction & Self-managed and responsive teams**Top of Form

Complex, but less number of releases  
Resource-based management of the process

14. Which command is used to access the list of Ansible\_Variables?

**Top of Form**

**ansible- m setup hostname**  ansible pull ansible-playbook playbook.yml --list-hosts

15. Ansible an open-source tool.? **Yes**

16. Node in Chef is a \_\_\_\_\_\_

Top of Form

Virtual machine Container instance Physical server **All the above options**

17. What type of software testing uses **JUnit with Java**?

**Top of Form**

**Unit testing** Integration testing Functional testing System testing

18. Which value is returned in the JUnit test?

Top of Form

String Int Object **Void**

19. Which methods cannot be tested by JUnit test class?

Top of Form

Public Methods **Private Methods** Protected Methods Methods with void return type

20. Which of the following methods of Assert class checks that a condition is true?

Top of Form

void assert(boolean condition)

**Ans: void assertTrue(boolean condition)**

void assertCheck(boolean condition)

void assertChecks(boolean condition)

21. Docker containers are based on open standard\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Top of Form

Allowing containers to run only on major Linux distributions.

Allowing containers to run on Microsoft operating systems only

**Ans: Allowing containers to run on all major Linux distributions and Microsoft operating systems**

None of the above options

22. Containers running on a single machine share the same operating system kernel to start instantly and make more efficient use of RAM.

Top of Form

**Ans: True**

23. Containers include the application and all of it’s dependencies, but share the kernel with other containers. They run as an isolated process in userspace on the host operating system.

Top of Form

**Ans : True**

24. \_\_\_\_\_\_\_\_\_\_ is native clustering for Docker. It turns a pool of Docker hosts into a single, virtual Docker host.

**Top of Form**

**Docker Swarm** Docker Hub Docker Cloud Docker Compose

25. \_\_\_\_\_\_\_\_\_ command is used to remove an empty directory.

Rdir remove rm Ans: **rmdir**

26. Nagios uses results from the plugins to determine the current status of hosts and services on your network.Top of Form

Ans: **TRUE**

27. Why do you need plugins?

**Top of Form**

**Nagios will execute a plugin whenever there is a need to check the status of a host or service**

Plugins are useful for monitoring services that are asynchronous in nature

Both a and b None of the above options

28. \_\_\_\_\_\_\_\_ is an open-source visualization tool that can be used on top of a variety of different data stores, but is most commonly used together with Graphite, InfluxDB, Elasticsearch, and Logz.io.

**Grafana** Kibana Nagios None of the above options

29. \_\_\_\_\_\_\_\_\_\_ is an open-source container management tool which holds the responsibilities of container deployment, **scaling and descaling of containers, and load balancing**.

Grafana Nagios **Kubernetes** Docker

30. Which of the following is/are features of **Kubernetes**?

Automated scheduling Self-healing capabilities Automated rollouts and rollbacks

**All of the above options**

**1.Agile and DevOps are similar but differ in a few important aspect.Which statement is correct?**

**A) Agile is a change of thinking whereas DevOps is actual organisation cultural change**

B) Agile is actual organisational cultural change whereas DevOps is a change of thinking.

C) Agile is process driven whereas DevOps is role driven.

D) Agile is role driven whereas DevOps is process driven.

2.The adoption of DevOps is being driven by factors such as:

A) Use of Agile and other development processes and methodologies

B) Demand for an increased rate of production releases from application and business unit stakeholders

C) Wide availability of virtualised and cloud infrastructure from internal and external providers

**D)** Increased usage of data centre automation and configuration management tools

**E)All the above**

**3.The development teams that support the Agile approach to DevOps must include staff from the operations teams to ensure:**

A) That stability is prioritised over creativity

B) Operational considerations are prioritised over stability

**C) Operational considerations are taken into account**

**D) The resultant designs of the systems will fit nicely into the business as usual environment**

**Which benefits of adopting a DevOps approach could be included in a business case to adopt a DevOps approach?**

A) Improved deployment frequency, which can lead to faster time to market

B) Lower failure rate of new releases

C) Shortened lead time between fixes

D) Faster mean time to recovery in the event of a new release crashing or otherwise disabling the current system

**e) all**

**Which statement best describes the relationship between DevOps and Continuous Delivery?**

A) DevOps and Continuous Delivery are the same thing.

B) DevOps and Continuous Delivery are not related and are mutually exclusive.

**C) DevOps and Continuous Delivery share a background in Agile methods and LEAN thinking.**

D) DevOps and Continuous Delivery share common processes.

**Which statement best describes the role of Change Management within a DevOps environment?**

A) Nothing changes as a risk adverse Change Management approach is paramount to IT and business success.

B) The moment an app change is asked for, the request should go to the Developers to authorise. Once authorised it goes to Operations for implementation.

**C) The moment an app change is asked for, the request should go out to everyone on the team, no matter which IT discipline they work in.**

D) DevOps does not need Change Management?

**Which statement best describes the goal of DevOps?**

A) One goal of DevOps is to establish an environment where Change Management does bot control application releases.

**B) One goal of DevOps is to establish an environment where releasing more reliable applications faster and more frequently can occur.**

C) One goal of DevOps is to establish an environment where application development perform all operations tasks.

D) One goal of DevOps is to establish an environment where releasing applications is valued over the quality of the released application.

**Which of these statements are correct about DevOps?**

A) DevOps and ITIL® don’t mix

B) DevOps won’t work in regulated industries

C) DevOps won’t work with Outsourced Development

D) You must use cloud technologies

**E) all are in correct**

**DevOps means…**

A) Developers taking over all Operations tasks.

B) Automating the process of software delivery and infrastructure changes.

**C) The collaboration and communication of both software developers and other information-technology (IT) professional while automating the process of software delivery and infrastructure changes.**

D) The collaboration and communication of just software developers and operations staff while automating the process software delivery and infrastructure changes.

**Is this statement correct? “DevOps is more than just a tool or a process change, it inherently requires an organisational culture shift”**

**A) Yes, there needs to be cultural shift within the organisation across all stakeholders to ensure a successful adoption of a DevOps approach.**

B) Yes, but the most up to date tools and LEAN processes need to be in place to drive an organisational culture shift.

C) No, DevOps is all about the tools.

D) No, cultural shift will occur when staff are using the most up to date tools and LEAN processes.

**Which of the Three Ways increases the flow of work from left to right?**

Third Way Ans: **First Way** Second Way All of the above

**What is the MAIN goal of The Second Way?**

Both A and B Developing software faster

**Enabling continual improvement** Using innovation to create a competitive advantage

**Ex**: Second way of DevOps encourages **short feedback loops from right to left**. This enables continuous improvement.

**According to the Theory of Constraints, which step precedes ‘exploit the constraint’?**

Subordinate everything to the constraint Elevate the constraint

Prevent inertia from becoming the constraint **Identify the constraint**

Ex: In Theory of Constraints (ToC) identifying the constraint precedes exploiting the constraint.

**Which can be improved by integrating DevOps and IT service management practices?**

Change lead time Deployment frequency

Mean time to recover (MTTR) **All of the above**

**Explanation:** All the above mentioned benefits can be achieved by integrating DevOps practices and IT Service Management practices.

**Which is NOT one of The Three Ways?**

Shorten feedback loops **Automate the continuous testing**

Understand and increase the flow of work Continuous experimentation and learning

**Explanation**: Automation of continuous testing is not part of the three ways of DevOps. It is part of the DevOps automation practices.

**Which is the BEST description of value stream mapping?**

Reflects the future state of a value stream Uses visual cards to trigger an action

Enables incremental improvement

**Depicts a process from a work and information flow perspective**

**Explanation:**

Value Stream Mapping depicts the FLOW of activities and information from request to delivery. Once defined the value stream map helps in identifying and eliminating waste and other inefficiencies from the value stream.

**An organization is considering introducing Continuous integration to their software development efforts. What would be the PRIMARY advantage of this approach?**

**Ans:** Code commits can be tested together in order to detect and remediate errors before they go into production

**Explanation:** Continuous Integration helps in executing automated test cases for every code change committed in to the version control system. Thus errors are detected and remediated before the product increment is deployed.

**Q) Which statement about continuous integration is CORRECT?**

Ensures software is always in a releasable state throughout its lifecycle

**Ans: Ensures code is integrated into a shared version control system on a daily basis**

Automatically integrates software that passes automated tests into the live environment

Ensures software is error free

**Explanation:** Continuous Integration ensures that code is committed multiple times in a day by the development team members. All code changes are integrated in to a common shared repository.

**Q) Which statement about continuous deployment is CORRECT?**

Releases code to all customers

**Ans: Removes manual step in continuous delivery pipeline**

Satisfies all regulatory controls

Requires manual deployment to production

**Explanation:** Continuous Deployment removes the manual step (one click deployment) from Continuous Delivery pipeline. Thus each step is automated in the pipeline with out any human intervention.

**Q)Which DevOps practice prioritizes keeping software deployable over working on new features?**

**Ans: Continuous delivery** Continuous integration

Continuous deployment Continuous improvement

**Explanation:** Continuous Delivery insists on keeping the software in a releasabe state more than working on new features.

**Q) When would Kanban be useful?**

To make day-to-day work more manageable by allowing teams to pull work when they are ready

To make processes more efficient and eliminate waste

**Ans: Both A and B**

To enable developers to experiment and learn from their mistakes

**Explanation:** Kanban is a visual management approach which helps in visualizing the processes and making it more effective. Other practices in Kanban include Limiting work in progress, PULL system, etc.

**Q) Which of the following is NOT a benefit of using a Kanban board?**

**Ans: It enables people to work collaboratively**

lt reduces idle time and waste

lt reduces work in progress

lt defines policies and procedures

**Q)Which of the following helps an organization to practice Rugged DevOps and DevSecOps?**

Embedding security engineers into DevOps Teams

Embracing a "shift right" testing strategy

**Ans: Introducing security as code**

Conducting frequent security audits before and after deployment

**Q) Which DevOps practice supports The Third Way?**

Automated testing Continuous integration

Peer review of production changes Ans: **Improvement Kata**

**Explanation**

Third way of DevOps insists on continuous experimentation and learning. Improvement Kata is a technique that helps organization to change the behaviour of it's people.

**Q) Which DevOps practice supports The First Way?**

**Ans: Continuous deployment** Automated testing

Improvement Kata Process Measurements

**Explanation:** Continuous deployment helps in implementing FLOW of pipeline activities from **left to right**. This aligns with the first way of DevOps.

**Q)Which DevOps practice provides fast, automated feedback on the production-readiness of systems?**

Continuous testing Continuous deployment

Continuous integration **Continuous delivery**

**Explanation:** Continuous Delivery encourages keeping the product in releasable state. Thus continuous feedback on production readiness is achieved.

**An organization wants to identify quick ways to improve the flow of its existing processes. Which of the following would BEST help them to eliminate unnecessary tasks?**

**Ans**: Value stream maps

###### What is the best description of the Theory of Constraints?

A methodology for identifying the most significant limiting factor that stands in the way of achieving a goal

**Explanation:** Theory of Constraints (ToC) insists on identifying the constraints and eliminating them so that organization's goals can be achieved effectively.

**In the context of DevOps, which statement about Release and Deployment Management is TRUE?**

Business requirements determine release frequency

Teams should strive for daily releases

Automating environment provisioning reduces delays

**Both B and C**

**Explanation:** Best DevOps practices in release and deployment management encourages business to determine the release frequency and also automating the environment provisioning.

**Which is the fourth step (out of five steps) in the Theory of Constraints?**

Make quick improvements using existing resources

Start over - the steps are part of a continuous improvement cycle

**If the constraint still exists, determine what other actions can be taken to eliminate it**

Review all other activities in the process to ensure that they support the needs of the constraint

**Explanation:** In fourth step of Theory of Constraints (ToC) if the constraint still exists then other actions should be identified to eliminate the constraint.

**Which is a goal of DevOps?**

Improve communication and collaboration

Improve the quality of software deployments

Improve time to market

**All of the above**

**What is one of the PRIMARY benefits of Continuous Delivery?**

lt reduces the cost, time, and risk of delivering incremental changes to the business

**In the context of process improvement, which statement about models is CORRECT?**

Define steps for handling specific types of transaction

Ensure a defined path or timeline is followed

Can be automated

**All of the above**

**Which DevOps practice supports The Second Way?**

Kanban boards

Continuous delivery

The Deming Cycle

**Shared on-call rotation**

**Explanation:** Share on-call rotation helps in establishing short feedback loops that flows from right to left. This feedback is then embedded in to the system for continuous improvement.

**How do tools such as dashboards and Kanban boards help an organization adopting a DevOps culture?**

Improve communication and collaboration