# DevOps Academy Questions

1. Is Subversion (SVN) structured:
   1. Peer to peer
   2. **Client-server**
2. Name 2 benefits of SCM tools
   1. **Integration of code changes**
   2. **Maintains code history**
   3. **Reverts to previous code version**
   4. **Compare versions and changes**
   5. **Ability to merge changes**
3. Name 3 advantages of using Git over SVN
   1. **Staging areas**
   2. **Faster**
   3. **More Scalable**
   4. **Uses less space**
   5. **Easily facilitates parallel development**
   6. **Reusable DevOps assets**
   7. **Everyone's has a local full copy**
4. If we make a hotfix branch using the GitFlow branching strategy, which branches must it merge into after the work has been completed (select all that apply)?
   1. **Master**
   2. **Develop**
   3. Hotfix
   4. **Release**
   5. Feature
   6. Iteration
5. Name a commonly used peer review tool used with Git.
   1. **Gerrit**
   2. **Stash**
   3. **Phabricator**
   4. **GitLab (Github)**
6. Name the most popular CI/CD Orchestration tool in Accenture
   1. **Jenkins**
7. Name 3 types of QA that can be run within a CD pipeline
   1. **Unit Test**
   2. **Static Code Analysis**
   3. **Code Review**
   4. **Functional Test**
   5. **Performance Test**
   6. **Security Test**
   7. **Operations Test**
   8. **(Anything really)**
8. What does the popular metaphor say should servers be treated as?
   1. **Cattle**
   2. Pets
   3. Humans
9. Name 3 reasons Cloud helps DevOps?
   1. **Can treat infrastructure as code and version control it**
   2. **No delay getting servers**
   3. **On-Demand provisioning**
   4. **Scalability**
   5. **PaaS / Application services**
   6. **Pay per consumption (cost)**
   7. **Re-use of infrastructure code and machine images**
10. What does PaaS usually stand for?
    1. Portal-as-a-Service
    2. **Platform-as-a-Service**
    3. Process-as-a-Service
    4. None of the above
11. Name 4 Cloud Anti-Patterns?
    1. **Hoping things won’t fail**
    2. **Manual processes**
    3. **Tightly-coupled architectures**
    4. **Stateful applications**
    5. **Vertical scaling**
    6. **Long lived servers – (“treating servers as pets”)**
12. As of July 20th 2015, who is the Global DevOps lead?
    1. **Martin Croker**
13. What does the AWS service “IAM” stand for?
    1. Incident & Accident Management
    2. Identity & Accident Management
    3. **Identity & Access Management**
    4. Identity & Accident Management
14. Where did the GitFlow branching model originate?
    1. **A blog (**[**http://nvie.com**](http://nvie.com/)**)**
15. What does Git stand for or why is it called Git?
    1. **Linus Torvalds who invented it said he is egotistical and names all projects after himself (first Linux and then Git)**
16. Provide full names for all of these acronyms:
    1. ;CI
    2. HDD
    3. CD
    4. BDD
    5. PaaA
    6. TDD
    7. AWS
    8. SCM
    9. DVCS
    10. DCSC
    11. DMZ
17. **Continuous Integration**
18. **Hypothesis Driven Development**
19. **Continuous Delivery**
20. **Behavior Driven Development**
21. **Platform as an Application**
22. **Test Driven Development**
23. **Amazon Web Services**
24. **Software Configuration Management**
25. **Distributed Version Control System**
26. **DevOps Control Services**
27. **De-Militarised Zone**
28. Name 3 best practices for providing highly available (HA) applications in the Cloud?
    1. **Avoid single points of failure**
    2. **Always place (at least) one of each component (load balancers, app servers, databases) in at least two Availability Zones**
    3. **Maintain sufficient capacity to absorb AZ / cloud failures**
    4. **Reserved Instances**
    5. **Clouds/regions for failover**
    6. **Setup monitoring, alerts and operations to identify and automate problem resolution or failover process**
    7. **Design stateless applications for resilience to reboot / re-launch**
29. Can you name 3 common areas of operations?
    1. **Security**
    2. **Monitoring**
    3. **Patching**
    4. **Backups**
    5. **High Availability**
30. Can you describe what each component of ELK is and does?
    1. **ElasticSearch - flexible and powerful open source, distributed, real-time search and analytics engine**
    2. **Logstash - helps you take logs and other time based event data from any system and store it in a single place for additional transformation and processing**
    3. **Kibana - Elasticsearch’s data visualization engine, allowing you to natively interact with all your data in Elasticsearch via custom dashboards**
31. What is the Accenture definition of Devops?
    1. **The engineering discipline of optimising   
       both Development and Operations to enable the realisation of business goals through rapid feedback, and   
       stable, responsive and flexible IT.**
32. Draw a CI pipeline for a recent project