Software design is the process of transforming the stated problem into **a ready-to-use implementation**.  
  
A. False  
B. True

A

Abstract solutions do not require extensive domain knowledge and effectively reduce the costs during the software design phase.  
  
A. **False**  
B. True

A

It is often advised that abstract solutions do not provide optimization details regarding the implementation.  
  
A. **True**  
B. False

A

When it comes to software design, it is always best to follow a solution that is widely popular in the industry  
  
A. **False**  
B. True

A

While a solution coming from software design does not include implementation details, there are still common cases where pseudocode may be provided to correctly capture the sense of a complex algorithm.  
  
A. **True**B. False

A

The goal in low coupling is to ensure that changes don't cross the boundaries of modules.  
  
A. **True**  
B. False

A

**The goal in real-life** software development is to aim for object and functional cohesion and anything less than this should be justified.  
  
A. True  
B. False

A

A constraint to only use Microsoft Project during the system development is a non-functional requirement.  
  
A. **True.**  
B. False.

A

Looking at the difference between user requirements and system specifications in the ATM example, we know that swiping the card and prompting for a PIN are requirements, while reading the card details and a 4-digit PIN are specifications.  
  
A. **True.**  
B. False.

A

Partitioning of a large system into smaller subsystems helps the **buy-or-build** decision because we can examine each subsystem and reason about possible **buy-or-build** options for each.  
  
A. True.  
B. False.

A

Software architecture concerns itself with both estimation and quality **but not** partitioning.  
  
A. True.  
B. **False.**

B

True or False: inheritance strengthens cohesion.  
A. True  
B. **False**

B

True or False: Every method can be written without side effects.  
A. True.  
B. False.

B

Deployment occurs in the end stage of active development.  
A. True  
B. False

A

A rollback is the reversal of actions completed during deployment with the intent to never revert a system back to its previous working state.  
A. True  
B. False

B

Deployment without a rollback plan should occasionally occur. Especially when the installation involves deleting files.  
A. True  
B. False

B

There is no difference between load balancing and hot failover.  
A. true  
B. false

B

The oracle uses information provided from test cases to decide the correctness of the software under test  
A. True  
B. False

A

Manual oracles are sufficient and effective for the majority of real-world applications  
A. True  
B. **False**

B

Software testing can be used to prove the absense of failures in a module, but not the absense of faults  
A. True  
B. False

B

In waterfall method, you get your product in one big bang deployment  
A. True  
B. False

A

In predictive models, you are not sure of user needs so requirements are expected to change during development.  
  
A. True  
B. False

B

In the Unified Process, all requirements work is done upfront and no requirements work is done in the construction phase.  
A. True  
B. False

B

When applying agile, we don't need to do any release planning.. We only plan for a week.  
  
A. True  
B. False

B

Using a debugger can find all defects in code.  
  
A. True  
B. False

B

Commits should happen only at the end of a daily coding session.  
  
A. True  
B. False

B

Only one line of code should change per commit.  
  
A. True  
B. False

B

Commit messages are only helpful to you at the time you make them.  
  
A. True  
B. **False**

B

Branching aids developers seeking to work on the same code simultaneously.  
  
A. True  
B. False

A

Project materials are stored in a remote repository through the WebHook functionality.  
  
A. True  
B. False

B

Compilers perform static analysis.  
  
A. True  
B. False

A

Static analysis can only be performed while code is being executed.  
  
A. True  
B. False

B

The goal of test selection is to find the maximum number of tests that can be successfully run.  
  
A. True  
B. False

B

Randomly testing is the poorest form of testing.  
  
A. True  
B. False

B

The developer of the code is the best person to test that code.  
  
A. True  
B. False

B

Manually created tests can use randomly selected inputs to maximize defect finding.  
  
A. True  
B. False

A

Code coverage includes statement coverage, ensuring all code statements are executed at least once by at least one test case and all tests pass.  
  
A. True  
B. False

A

Requirements testing is difficult because the tests can't be created until the code is written, which is quite far into the development process.  
  
A. True  
B. False

B

Program testing helps find defects, but testing cannot prove there are no bugs.  
  
A. **True**  
B. False

A

A test case is a set of inputs written to try and "break the code", i.e. find a defect.  
  
A. True  
B. False

B

Test obligations come from Structural Analysis, that is, from the code itself.  
  
A. True  
B. False

B

Tests which meet the code coverage criteria can still be poor tests.  
  
A. **True**  
B. False

A

New processes/reports are able to be added to the Jenkins Pipeline through plug-ins.  
  
A. **True**  
B. False

A

Continuous Integration alerts to submitting developer of build or test failure, but cannot remove the code committed.  
  
A. True  
B. **False**

B

Continuous Integration is a subset of the capabilities in a Continuous Delivery pipeline.  
  
A. **True**  
B. False

A

Pushing code to production without the need for developer action is one of the primary benefits of Continuous Delivery.  
  
A. True  
B. **False**

B

The difference between Continuous Delivery and Continuous Deployment is whether the deployment of code to production is manual or automated, respectively.  
  
A. **True**  
B. False

A

Canary is a system of alerts to developers based on build, test, release and/or deployment. The alerts are similar to "tweets" as on Twitter, hence the similarity of the names.  
  
A. True  
B. **False**

B

Since the goal is for every test to pass, tests should only include inputs which will result in successful operation/behavior when executed on correct code.  
  
A. True  
B. **False**

B

The developer should first run the tests before adding anything new, as in to ensure that all tests passed before adding any new tests or code.  
  
A**. True**  
B. False

A

Continuous Delivery is an update to the Blue-Green Deployment paradigm.  
  
A. True  
B. False

B

Statement coverage is the strongest form of code coverage, which is why it is required for many FAA and FDA regulated software projects.  
  
A. True  
B. False

In the Observer pattern, one difficulty is that the Subject cannot pass an instance of itself to the Observer being updated, due to circular dependencies.  
  
A. True  
B. False

B

Once a class has been had an Adapter pattern solution applied, it cannot be adapted again.  
  
A. True  
B. False

B

Factories are no longer useful when you apply the Strategy Pattern to a family of algorithms.  
  
A. True  
B. False

B

Observer is an implementation of the Dependency Inversion principle.  
  
A. True  
B. False

A

Strategy Pattern helps maintain the Open/Closed Principle.  
  
A. True  
B. False

A

The logical (intended) dependency is that observer depends on subject.  
  
A. True  
B. False

A