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**Grade** 8.00 out of 10.00 (80%)

## Question 1

Correct

Mark 1.00 out of 1.00

What is INCORRECT about open-source development?

Select one:

- a. Many important open source products used widely in the world: Java, Linux, MySQL.
- b. The source code of a software system is published.
- c. Volunteers are invited to participate in the development process.
- d. Volunteer developers are NOT users of the code. ✓

The correct answer is: Volunteer developers are NOT users of the code.

## Question 2

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is INCORRECT?

Select one:

- a. May show the trade-offs of applying the pattern
- b. May describe the results of applying the pattern.
- c. Must describe both the problem and the solution.
- d. Must provide the source code of the pattern to the users ✓

The correct answer is: Must provide the source code of the pattern to the users

## Question 3

Correct

Mark 1.00 out of 1.00

In the design pattern Observer \_\_\_\_.

Select one:

- a. The ConcreteSubject can add and remove Observers (ConcreteObserver) and to issue a notification when the state has changed.
- b. All of the other answers are correct.✓
- c. The ConcreteObserver automatically displays the state and reflects changes whenever the state is updated.
- d. There are two abstract objects, Subject and Observer, and two concrete objects, ConcreteSubject (inherits Subject) and ConcreteObserver (inherits Observer).

The correct answer is: All of the other answers are correct.

## Question 4

Correct

Mark 1.00 out of 1.00

What would be considered about license in open-source development?

Select one:

- a. Open-source has no license, do not need to care about the license.
- b. There are some license models such as GPL, LGPL, BSD for software license on using, development and distribution.✓
- c. Free to use, but need an agreement from the authors before changing the source code.
- d. Only need to reference (to the original), do not need to care anything else.

The correct answer is: There are some license models such as GPL, LGPL, BSD for software license on using, development and distribution.

## Question 5

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is correct?

Select one:

- a. All of the other answers are correct.✓
- b. A design pattern is a description of the problem and the essence of its solution.
- c. A problem can be solved by one or more design patterns.
- d. A design pattern is a way of reusing abstract knowledge about a problem and its solution.

The correct answer is: All of the other answers are correct.

## Question 6

Correct

Mark 1.00 out of 1.00

What can be re-use in software engineering?

Select one:

- a. Object level: Directly reuse objects from a library rather than writing the code yourself.
- b. Abstraction level: No software is reused directly but knowledge of successful abstractions in the design of your software.
- c. All of the other answers are correct. 
- d. Component level: Collections of objects and object classes that you reuse in application systems.

The correct answer is: All of the other answers are correct.

## Question 7

Incorrect

Mark 0.00 out of 1.00

Which of the following diagrams CANNOT be in a design document?

Select one:

- a. Sequence/collaboration diagram. 
- b. State-chart diagram.
- c. Use-case diagram.
- d. Activity diagram.

The correct answer is: Use-case diagram.

## Question 8

Incorrect

Mark 0.00 out of 1.00

To apply a design pattern, \_\_\_\_.

Select one:

- a. We need to ask the customers which design pattern they don't want to use.
- b. We need to recognize that any design problem you are facing may have an associated pattern that can be applied.
- c. All of the other answers are correct. 
- d. We need to ask the programmers which design pattern they are familiar with.

The correct answer is: We need to recognize that any design problem you are facing may have an associated pattern that can be applied.

## Question 9

Correct

Mark 1.00 out of 1.00

Which of the following about the design pattern Observer is correct?

Select one:

- a. All of the other answers are correct. ✓
- b. When the object changes (its state), the displays will be notified and update.
- c. Separates the display of object state from the object itself and allows multiple displays of state of an object.
- d. Increase the “minimal coupling” between Subject and Observer: The subject does not require knowledge of the observer; and the observer only needs to know how to get new data.

The correct answer is: All of the other answers are correct.

## Question 10

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is INCORRECT?

Select one:

- a. Can be implemented in more than programming languages
- b. Can only be used when the consequence has no bad effect to the design.
- c. Usually be accompanied by examples of applying the pattern in practice.
- d. A design pattern can only be used for exactly the described problem. ✓

The correct answer is: A design pattern can only be used for exactly the described problem.

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