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Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is INCORRECT?

Select one:

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

Question **2**

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is INCORRECT?

Select one:

- a. Must describe both the problem and the solution.
- b. May describe the results of applying the pattern.
- c. May show the trade-offs of applying the pattern
- d. 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. There are two abstract objects, Subject and Observer, and two concrete objects, ConcreteSubject (inherits Subject) and ConcreteObserver (inherits Observer).

○ c. The ConcreteObserver automatically displays the state and reflects changes whenever the state is updated.

◉ d. All of the other answers are correct. ✔

Question 4

Correct

Mark 1.00 out of 1.00

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

Select one:

◉ a. Use-case diagram. ✔

○ b. State-chart diagram.

○ c. Sequence/collaboration diagram.

○ d. Activity diagram.

Question 5

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. Separates the display of object state from the object itself and allows multiple displays of state of an object.

○ c. 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.

○ d. When the object changes (its state), the displays will be notified and update.

Question 6

Correct

Mark 1.00 out of 1.00

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

Select one:

      a.   There are some license models such as GPL, LGPL, BSD for software license on using, development and   ✓
          distribution.

      b.   Only need to reference (to the original), do not need to care anything else.

      c.   Free to use, but need an agreement from the authors before changing the source code.

      d.   Open-source has no license, do not need to care about the license.

Question 7

Correct

Mark 1.00 out of 1.00

Which of the following about design pattern is correct?

Select one:

      a.   A design pattern is a description of the problem and the essence of its solution.

      b.   A problem can be solved by one ore more design patterns.

      c.   All of the other answers are correct. ✓

      d.   A design pattern is a way of reusing abstract knowledge about a problem and its solution.

Question 8

Correct

Mark 1.00 out of 1.00

What can be re-use in software engineering?

Select one:

      a.   All of the other answers are correct. ✓

      b.   Abstraction level: No software is reused directly but knowledge of successful abstractions in the design of your
          software.

      c.   Object level: Directly reuse objects from a library rather than writing the code yourself.

      d.   Component level: Collections of objects and object classes that you reuse in application systems.

Question 9
Correct
Mark 1.00 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.

Question 10
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. ✓