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

Question 1

Complete

Mark 1.00 out of 1.00

Which of the following is INCORRECT?

Select one:

- ☐ a. Classes are necessary in object-oriented software design.
- ☐ b. It is possible to convert a sequence diagram to a collaboration diagram (without any more information).
- ☐ c. Activity diagram represents activities of the system.
- ☒ d. A software design has to have all sequence diagrams, collaboration diagrams, activity diagrams, state-chart diagrams and use-case diagram.

Question 2

Complete

Mark 1.00 out of 1.00

Which of the following is the best opinion on software design?

Select one:

- ☒ a. Designing module/component interface is a part of software design.
- ☐ b. The software designers do not need to care about implementing when they design the software.
- ☐ c. Designing classes and their methods is responsible only by the requirement analyst.
- ☐ d. Architectural design is not a part of software design.



Question 3

Complete

Mark 1.00 out of 1.00

Which of the following opinion about software design is acceptable?

Select one:

- ☐ a. Software design = software architecture design.
- ☐ b. Detail design is not required when the programmers know how to build the software.
- ☐ c. When we use the best software design tool, we do not need to program because the best tool will generate the source code automatically.
- ☒ d. None of the other answers is acceptable .

Question 4

Complete

Mark 1.00 out of 1.00

For design models, which of the following explanation is NOT quite correct?

Select one:

- ☐ a. We always need both static and dynamic models
- ☐ b. Class diagram can be used to represent static models
- ☒ c. Use-case diagrams can be used to represent static models
- ☐ d. Sequence model and State machine model are dynamic models

Question 5

Complete

Mark 1.00 out of 1.00

Which of the following explanation about software design is acceptable?

Select one:

- ☐ a. Design all classes and class diagram first, and then the other diagrams.
- ☐ b. For software that uses database system, each table in the database should be represented by a class and each table column should be represented by one and only one class member/attribute.
- ☐ c. All of the other answers are correct.
- ☒ d. A detail sequence diagram usually show related classes and their methods



Question 6

Complete

Mark 1.00 out of 1.00

Which of the following explanations is correct?

Select one:

- ☐ a. State diagram is for representing the use-case of the system
- ☐ b. Interface specification is specification about user interface
- ☒ c. Sequence diagram describes interactions between components (chronologically)
- ☐ d. All of the other answers are correct.

Question 7

Complete

Mark 1.00 out of 1.00

The design models ____ .

Select one:

- ☐ a. show the objects and object classes and relationships between these entities
- ☐ b. have to be abstract to show the relationships between entities and the system requirements; and have to include enough detail for programmers to make implementation decisions.
- ☐ c. consist of static models representing static structure, and dynamic models representing dynamic interactions between objects.
- ☒ d. All of the other answers are correct.

Question 8

Complete

Mark 1.00 out of 1.00

(Module/Component) Interface specification is necessary. Why?

Select one:

- ☐ a. In some case, each module/component can be upgraded continuously and independently
- ☐ b. Modules/components can be developed concurrently (in parallel)
- ☒ c. All of the other answers are correct.
- ☐ d. Modules/components can hide their private attributes/methods



Question 9

Complete

Mark 1.00 out of 1.00

Which of the following explanation about design models is NOT quite correct?

Select one:

- ☒ a. Inter-connection models show logical communications of the system.
- ☐ b. Sequence models show the sequence of object interactions and can be represented using sequence/collaboration diagrams
- ☐ c. Subsystem models show logical groupings of objects into coherent subsystems and can be represented using package diagrams.
- ☐ d. State machine models show how individual objects change their state in response to events and can be represented using state-chart diagrams.

Question 10

Complete

Mark 1.00 out of 1.00

Which of the following is correct?

Select one:

- ☐ a. We only need some general idea (written) in the design document, all details must be discussed in the meeting with the developer team.
- ☐ b. We shall program a software before writing down the design to ensure that the source code and the design document are matched.
- ☒ c. In designing a software, it is necessary to ensure that the software can be implemented successfully (under constraints on human power, resources, budgets and project duration).
- ☐ d. We do not need details in designing stage, it is possibly changed in programming stage.

