ISQI.CPSA-FL.v2023-04-08.q36

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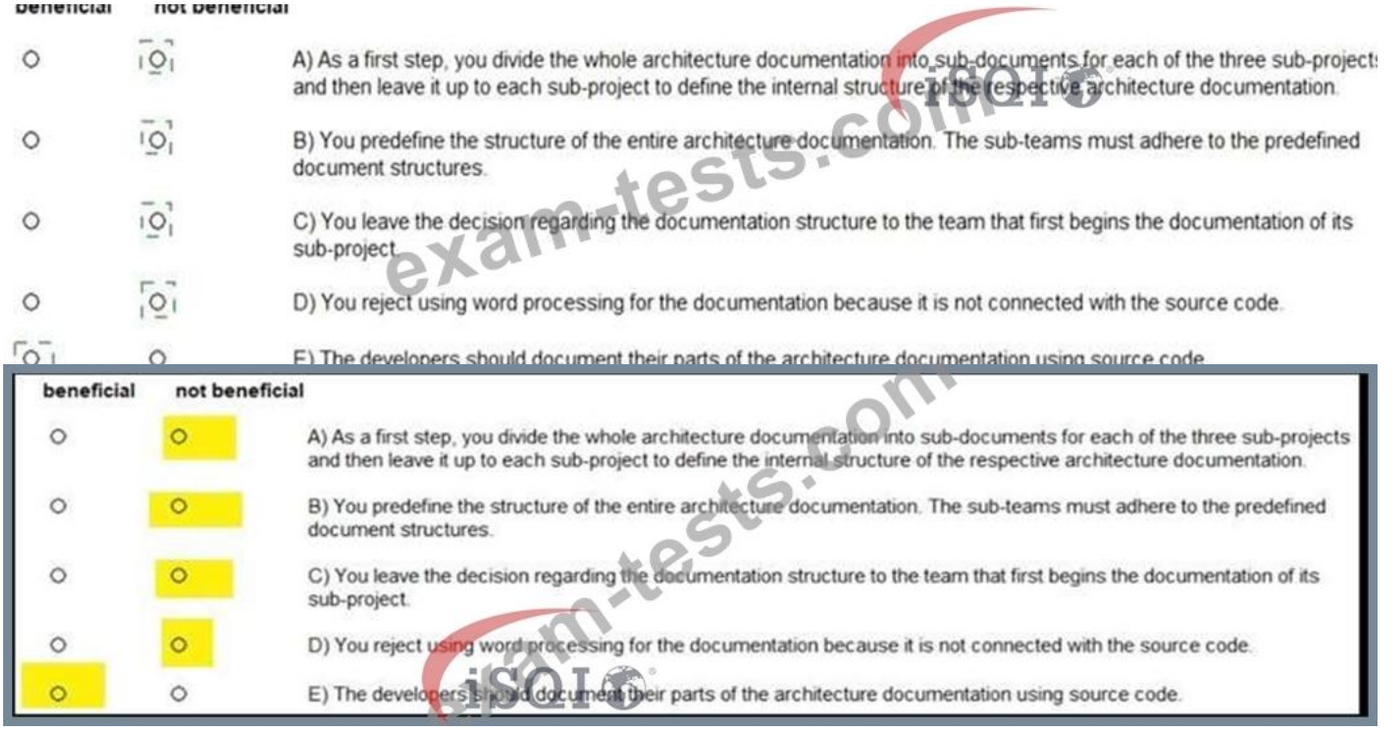
NEW QUESTION: 1
Which of the following statements about (crosscutting) concepts are most appropriate? (Select four.)
A. Uniform exception handling is most easily achieved when architects agree with developers upon a suitable concept prior to implementation.
B. The definition of appropriate concepts ensures the conceptual integrity of the architecture.
C. For each quality goal there should be an explicitly documented concept.
D. A concept might be implemented by a single building block.
E. Uniform usage of concepts reduces coupling between building blocks.
F. A concept can define constraints for the implementation of many building blocks.
G. Concepts are a means to increase consistency.
Answer: A,B,F,G (LEAVE A REPLY)

NEW QUESTION: 2
You are responsible for the documentation of the software architecture of a large development project. The project consists of three teams, each with its own architect, but with you as the person having overall responsibility of the entire project's software architecture.
Which of the following measures are beneficial? (Assign all answers.)

beneficial	not beneficial	
○	○	A) As a first step, you divide the whole architecture documentation into sub-documents for each of the three sub-projects and then leave it up to each sub-project to define the internal structure of the respective architecture documentation.
○	○	B) You predefine the structure of the entire architecture documentation. The sub-teams must adhere to the predefined document structures.
○	○	C) You leave the decision regarding the documentation structure to the team that first begins the documentation of its sub-project.
○	○	D) You reject using word processing for the documentation because it is not connected with the source code.
○	○	E) The developers should document their parts of the architecture documentation using source code.

Answer:



NEW QUESTION: 3

In a customer project the architecture shall be based on components. The requirements have not been fully determined yet.

Taking this constraint into account, which three properties of the components developed by you will you pay particular attention to? (Choose three.)

A. meaningful component names

B. weak coupling

C. strong cohesion

D. small component size

E. open for extension

Answer: C,D,E (LEAVE A REPLY)

NEW QUESTION: 4

You are supposed to choose a software-architecture modeling tool for a software-development project. You create a suitable criteria catalogue for the choice of appropriate tools.

Which of the following factors can play a role in this? (Assign all answers.)

true	false	
○	○	A) Multi-user capability
○	○	B) Support of UML 2.x and SysML
○	○	C) Document generation
○	○	D) Support of model transformations in preparation of the code generation
○	○	E) Support of code generation
○	○	F) Compliance with standards
○	○	G) Purchase and licensing costs

Answer:

true	false	
○	◉	A) Multi-user capability
◉	○	B) Support of UML 2.x and SysML
○	◉	C) Document generation
○	◉	D) Support of model transformations in preparation of the code generation
◉	○	E) Support of code generation
○	◉	F) Compliance with standards
○	◉	G) Purchase and licensing costs

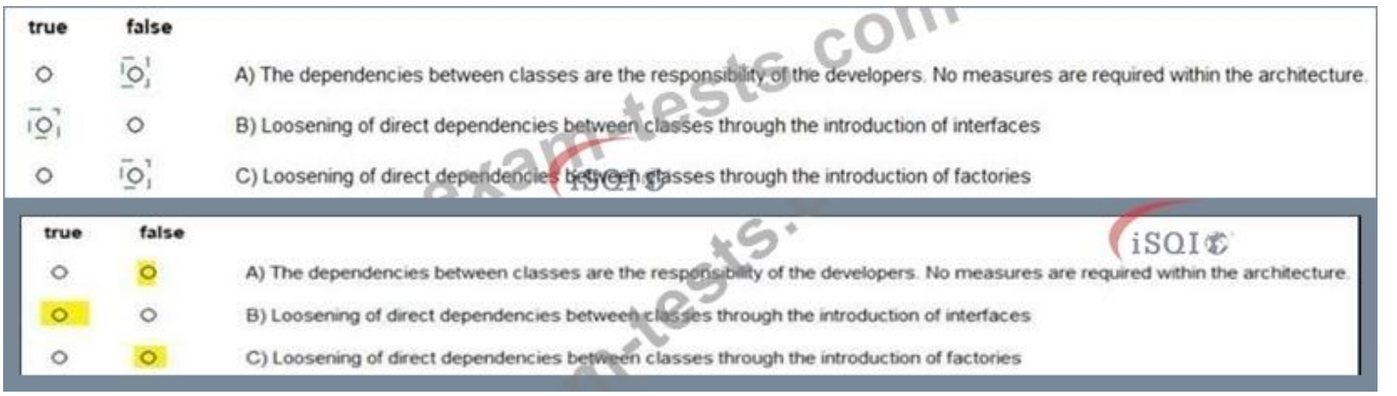
NEW QUESTION: 5

You are the software architect of a system that has run for many years and been extended repeatedly. An analysis of the source code has revealed a multitude of dependencies between the classes.

Which of the following measures are possible solutions? (Assign all answers.)

true	false	
○	○	A) The dependencies between classes are the responsibility of the developers. No measures are required within the architecture.
○	○	B) Loosening of direct dependencies between classes through the introduction of interfaces
○	○	C) Loosening of direct dependencies between classes through the introduction of factories

Answer:

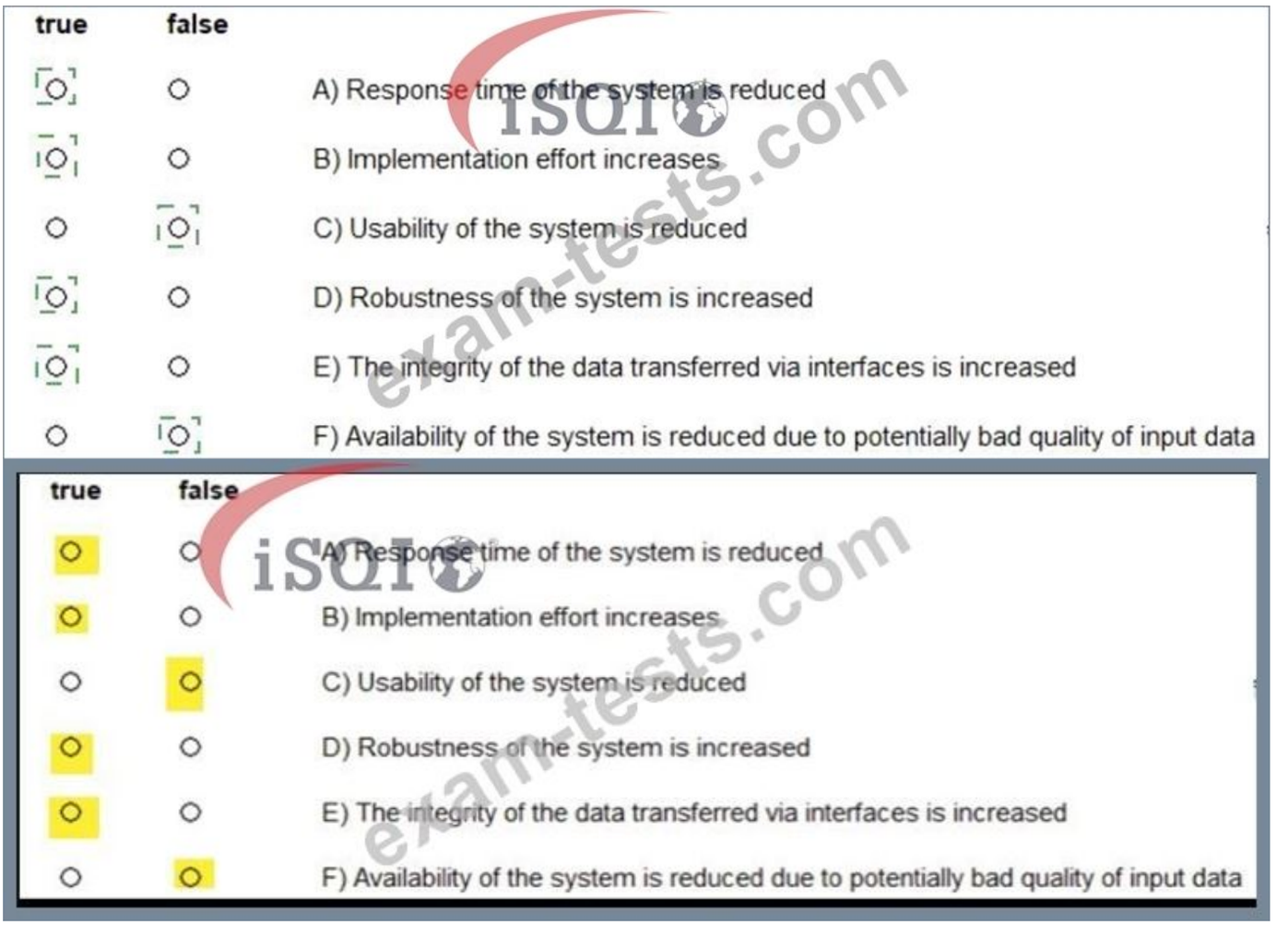


NEW QUESTION: 6
Which elements should be defined in the white-box view of a software building block 'foo'? Select the three most important elements. (Choose three.).
A. The legal contracts with the suppliers of the internal building blocks of 'foo'
B. The rationale for the decomposition of the building block
C. The sizes (in lines of code) of the internal building blocks of 'foo'
D. The dependencies of the internal building blocks of 'foo'
E. The algorithms of the internal building blocks of 'foo'
F. The internal building blocks of 'foo'
Answer: A,B,E (LEAVE A REPLY)

NEW QUESTION: 7
Concerning external interfaces, Postel's law suggests: "Be conservative in what you do, be liberal in what you accept from others." Assume that Postel's law has been consistently applied in your system. (Assign all answers.)

true	false	
○	○	A) Response time of the system is reduced
○	○	B) Implementation effort increases
○	○	C) Usability of the system is reduced
○	○	D) Robustness of the system is increased
○	○	E) The integrity of the data transferred via interfaces is increased
○	○	F) Availability of the system is reduced due to potentially bad quality of input data

Answer:



NEW QUESTION: 8

What are known patterns for the adaptation of interfaces? (Choose two.)

A. Tower

B. Façade

C. Observer

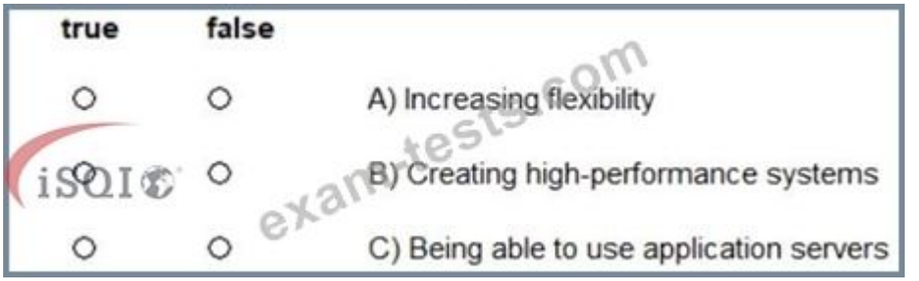
D. Wall

E. Bridge

Answer: C,E (LEAVE A REPLY)

NEW QUESTION: 9

What is the main benefit of the layered architectural pattern? (Assign all answers.)



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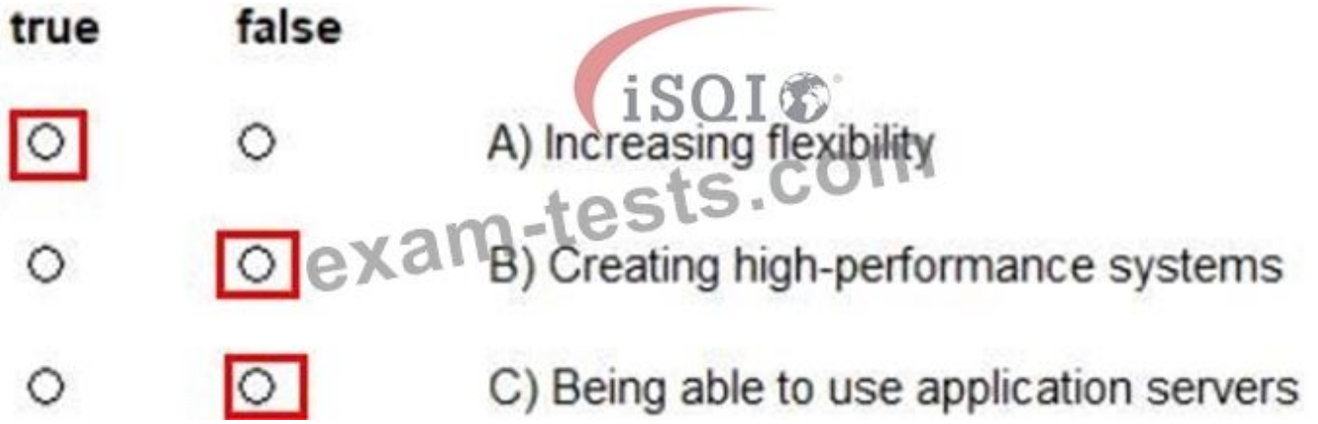

NEW QUESTION: 10
Which of the following techniques are best suited to illustrate the interaction of runtime building blocks? Select the four most suitable techniques.
A. Depiction of screen flows (sequence of user interactions)
B. State diagram
C. Flowcharts
D. Activity diagrams
E. Sequence diagrams
F. Tabular description of interfaces
G. Numbered lists of sequential steps
H. Class diagrams
Answer: (SHOW ANSWER)

NEW QUESTION: 11
What role does understandability play for architecture documentation?
Select the three most relevant answers.
P-Question: From the following 6 answers select 3 that fit best.
A. It is a quality characteristic together with correctness and efficiency
B. It is an important quality characteristic.
C. It is desirable, but not essential
D. It is a quality characteristic together with simplicity and brevity
E. It is a quality characteristic together with scope and completeness.
F. It is less important than completeness.
Answer: A,D,E (LEAVE A REPLY)

NEW QUESTION: 12
Which statements regarding top-down and bottom-up design are true? (Assign all answers.)

true	false	
○	○	A) Top-down and bottom-up design may be employed in the same project.
○	○	B) Top-down requires that details be ignored initially.
○	○	C) Architects leave the bottom-up design to developers.
○	○	D) Generally, architects should work top-down.
○	○	E) Bottom-up design means to proceed from the abstract to the concrete.
○	○	F) Different ideas about top-down and bottom-up approaches constitute a potential for conflict.

Answer:

true	false	
○	○	A) Top-down and bottom-up design may be employed in the same project.
○	○	B) Top-down requires that details be ignored initially.
○	○	C) Architects leave the bottom-up design to developers.
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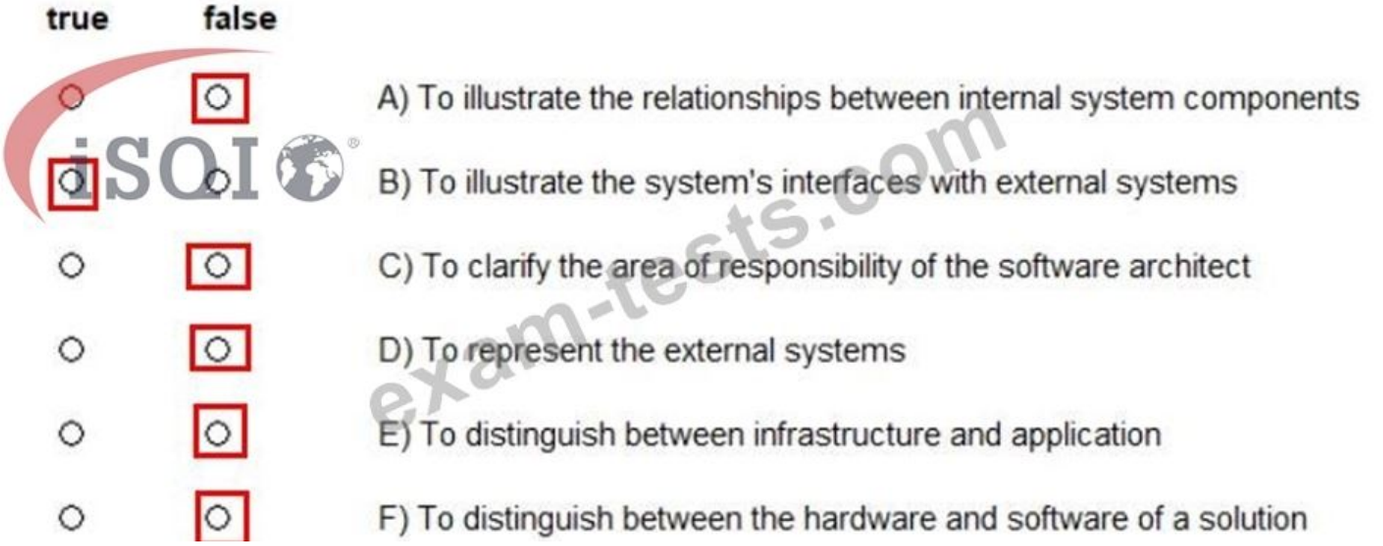
○	○	E) Bottom-up design means to proceed from the abstract to the concrete.
○	○	F) Different ideas about top-down and bottom-up approaches constitute a potential for conflict.

NEW QUESTION: 13

What is the purpose of defining the system context? (Assign all answers.)

true	false	
○	○	A) To illustrate the relationships between internal system components
○	○	B) To illustrate the system's interfaces with external systems
○	○	C) To clarify the area of responsibility of the software architect
○	○	D) To represent the external systems
○	○	E) To distinguish between infrastructure and application
○	○	F) To distinguish between the hardware and software of a solution

Answer:



NEW QUESTION: 14

Name the three most important fields of template-based architecture documentation. P-Question. From the following 5 answers select 3 that fit best.

A. To describe module structures (white boxes)

B. To use copyright templates for a consistent description of project/system meta information within documents and source codes

C. To describe individual architectural modules and their external interfaces (black boxes)

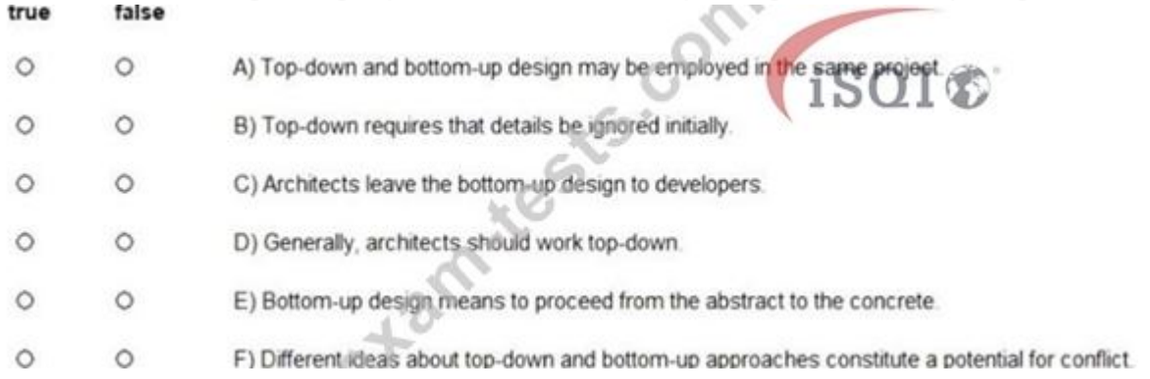
D. To use a standardized document structure

E. To reuse code and test case templates

Answer: (SHOW ANSWER)

NEW QUESTION: 15

Which statements regarding top-down and bottom-up design are true? (Assign all answers.)



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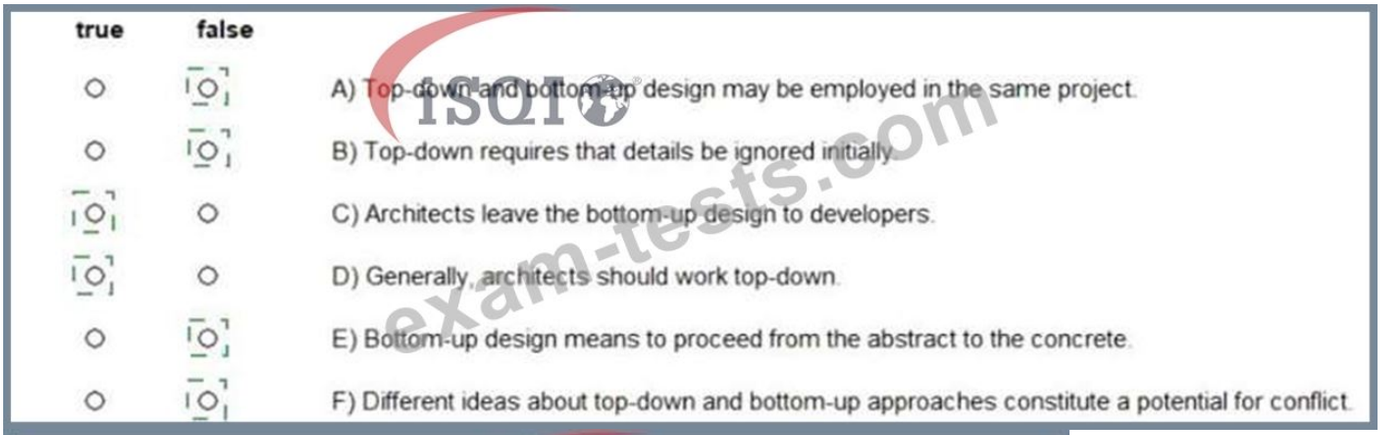
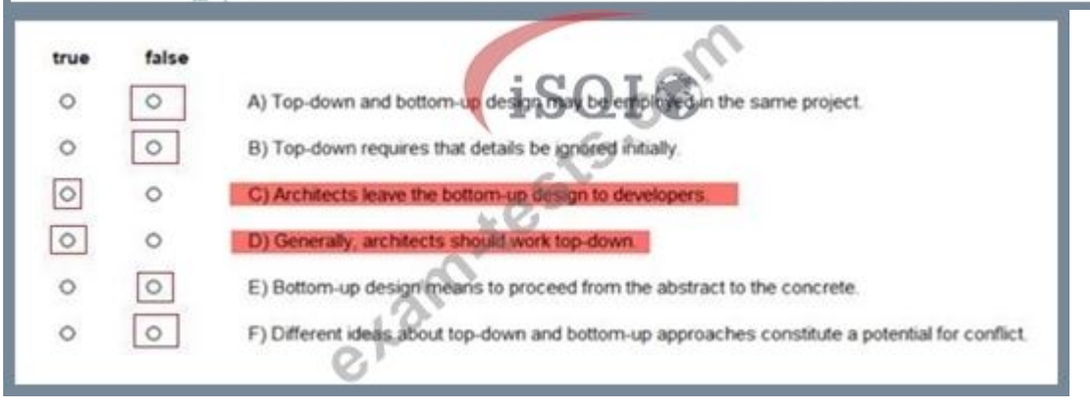
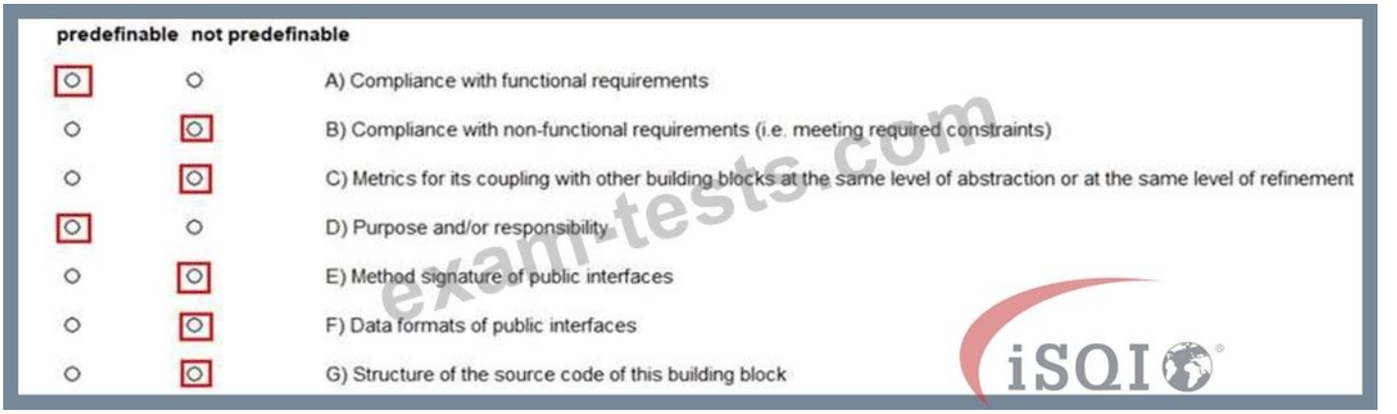




NEW QUESTION: 16

Which characteristics of a black-box building block are you able to specify as an architect? (Assign all answers.)

Answer:



NEW QUESTION: 17

How are written documentation and verbal communication of software architectures related? Please mark the following statements as true or false. (Assign all answers.)

true	false	
○	○	A) Agile approaches make written documentation unnecessary. In such cases, verbal communication can substitute for documentation.
○	○	B) Written documentation makes verbal reiteration unnecessary.
○	○	C) Despite written documentation, verbal communication of architectural interrelationships is important.
○	○	D) Documentation and communication should use identical terms and rationale.
○	○	E) Documentation should be created primarily for project participants who either cannot or do not want to read the system's source code.
○	○	F) Communication and documentation complement each other: verbal communication helps architects determine what must be recorded in writing.

Answer:

true	false	
○	○	A) Agile approaches make written documentation unnecessary. In such cases, verbal communication can substitute for documentation.
○	○	B) Written documentation makes verbal reiteration unnecessary.
○	○	C) Despite written documentation, verbal communication of architectural interrelationships is important.
○	○	D) Documentation and communication should use identical terms and rationale.
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○	○	F) Communication and documentation complement each other: verbal communication helps architects determine what must be recorded in writing.

true	false	
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○	○	D) Documentation and communication should use identical terms and rationale.
○	○	E) Documentation should be created primarily for project participants who either cannot or do not want to read the system's source code.
○	○	F) Communication and documentation complement each other: verbal communication helps architects determine what must be recorded in writing.

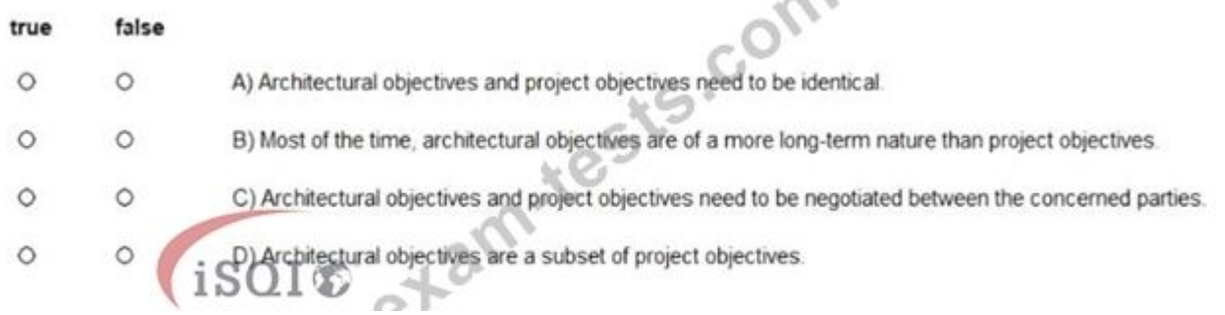
NEW QUESTION: 18

Which views should software architects document? Select the three most popular views.

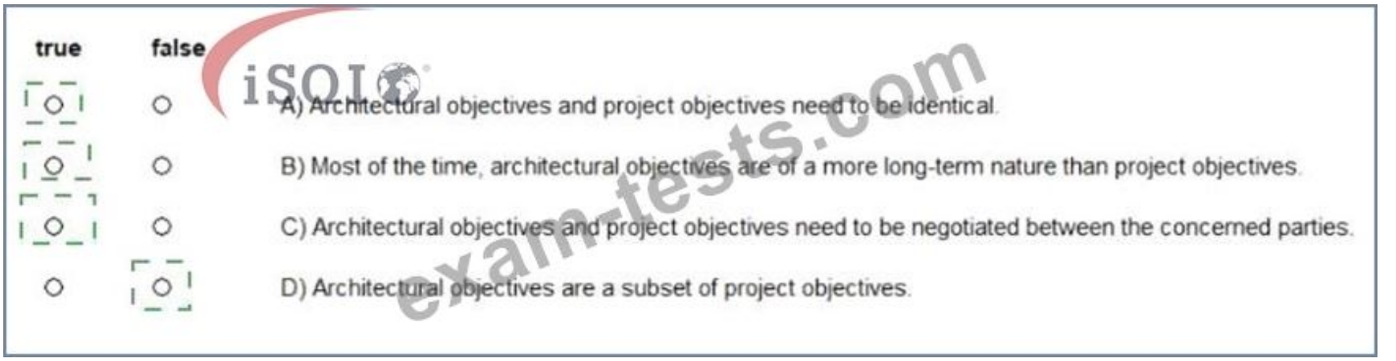
A. Interface view
B. Runtime view
C. Building-block view
D. Stakeholder view
E. Deployment view
F. Non-functional view
G. Link view
H. Configuration view
I. Data view
Answer: (SHOW ANSWER)

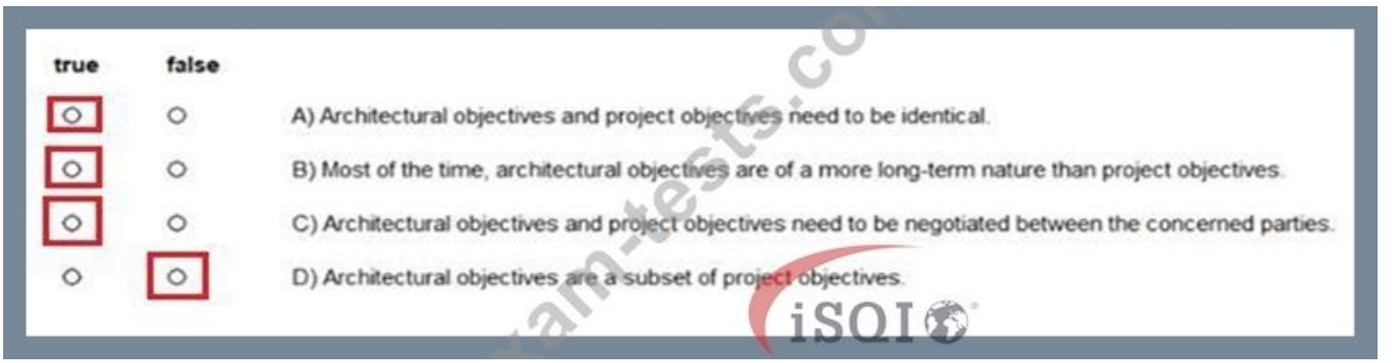
NEW QUESTION: 19
You want to demonstrate to colleagues that certain building blocks are suitable for the implementation of a use-case scenario Which of the following UML diagrams is best suited for this? A-Question: Choose one answer
A. Use-case diagram
B. Sequence diagram
C. Activity diagram
D. Class diagram
Answer: C (LEAVE A REPLY)

NEW QUESTION: 20
Which statements with regard to project objectives and architectural objectives are true and which are false?
K-Question: Assign all answers



Answer:





NEW QUESTION: 21

For which quality characteristics is the software architect responsible?

Please name the two characteristics that best match the role of the software architect. (Choose two.)

A. The software is free of errors

B. The technical quality of the software implementation

C. The suitability of the software design for its purpose

D. The performance of the software

Answer: B,D (LEAVE A REPLY)

NEW QUESTION: 22

Which information is presented in the building-block view? Rate the alternatives below as either true or false.

(Assign all answers.)

true	false	
○	○	A) Which building blocks the software is composed of
○	○	B) How the building blocks interact during run time
○	○	C) How the building blocks are hierarchically decomposed
○	○	D) How the building blocks are distributed in a distributed system
○	○	E) The dependencies between the building blocks

Answer:

true	false	
○	○	A) Which building blocks the software is composed of
○	○	B) How the building blocks interact during run time
○	○	C) How the building blocks are hierarchically decomposed
○	○	D) How the building blocks are distributed in a distributed system
○	○	E) The dependencies between the building blocks

true	false	
○	○	A) Which building blocks the software is composed of
○	○	B) How the building blocks interact during run time
○	○	C) How the building blocks are hierarchically decomposed
○	○	D) How the building blocks are distributed in a distributed system
○	○	E) The dependencies between the building blocks

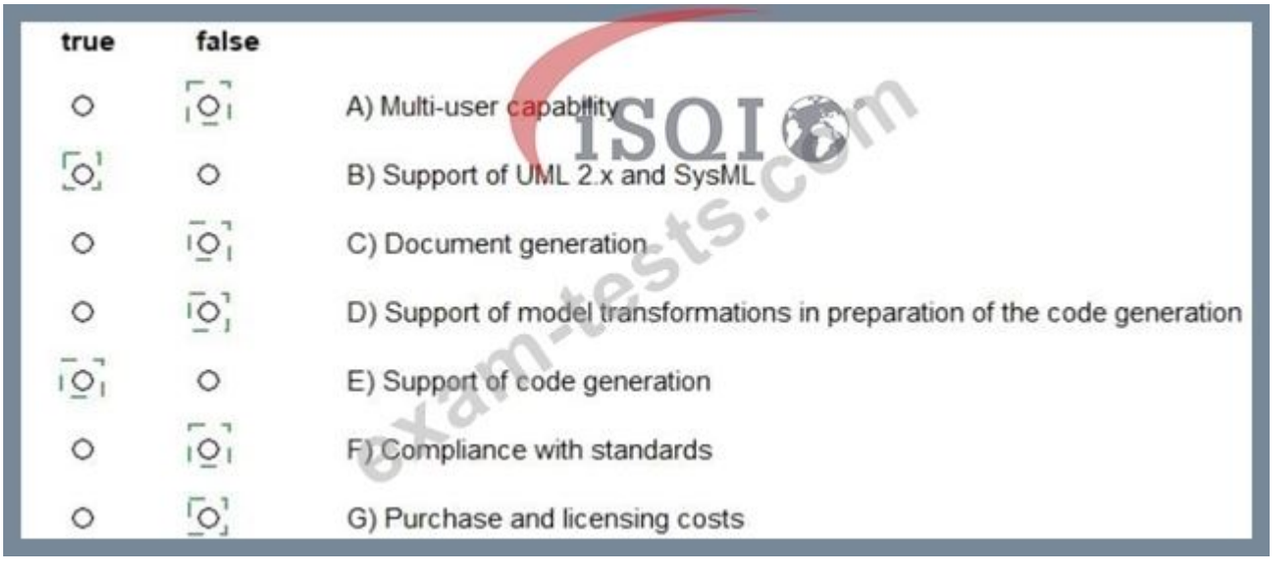
NEW QUESTION: 23

You are supposed to choose a software-architecture modeling tool for a software-development project. You create a suitable criteria catalogue for the choice of appropriate tools.

Which of the following factors can play a role in this? (Assign all answers.)

true	false	
○	○	A) Multi-user capability
○	○	B) Support of UML 2.x and SysML
○	○	C) Document generation
○	○	D) Support of model transformations in preparation of the code generation
○	○	E) Support of code generation
○	○	F) Compliance with standards
○	○	G) Purchase and licensing costs

Answer:



Explanation

References:

NEW QUESTION: 24

Which three artifacts does the assessment team create when conducting an ATAM evaluation?

P-Question.

From the following 7 answers select 3 that Fit best.

A. Architecture documentation

B. The concrete quality tree

C. List of the architectural risks

D. Selection of the quality attributes of the architectural building blocks

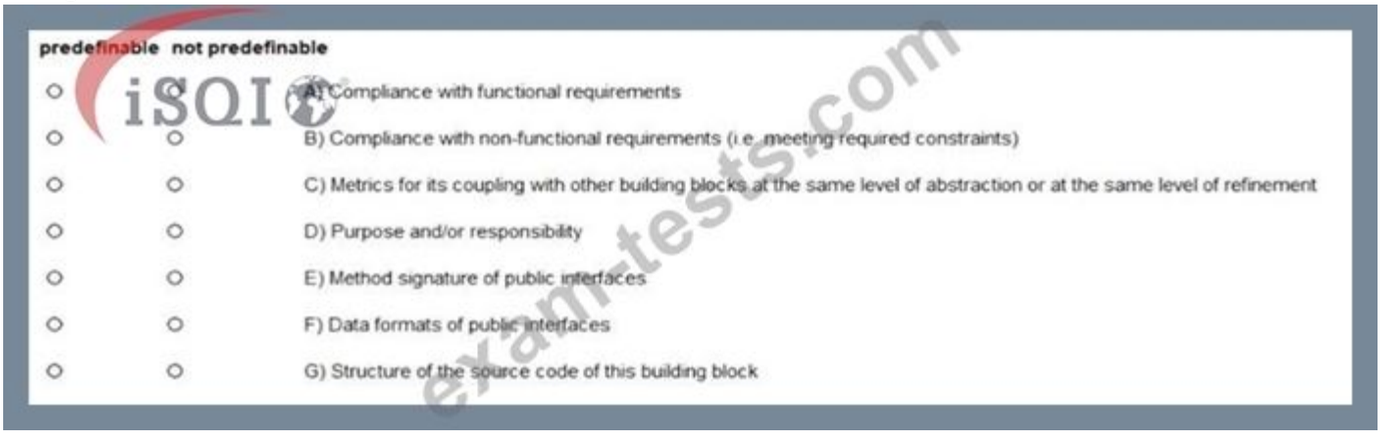
E. Description of quality scenarios

F. A quality model

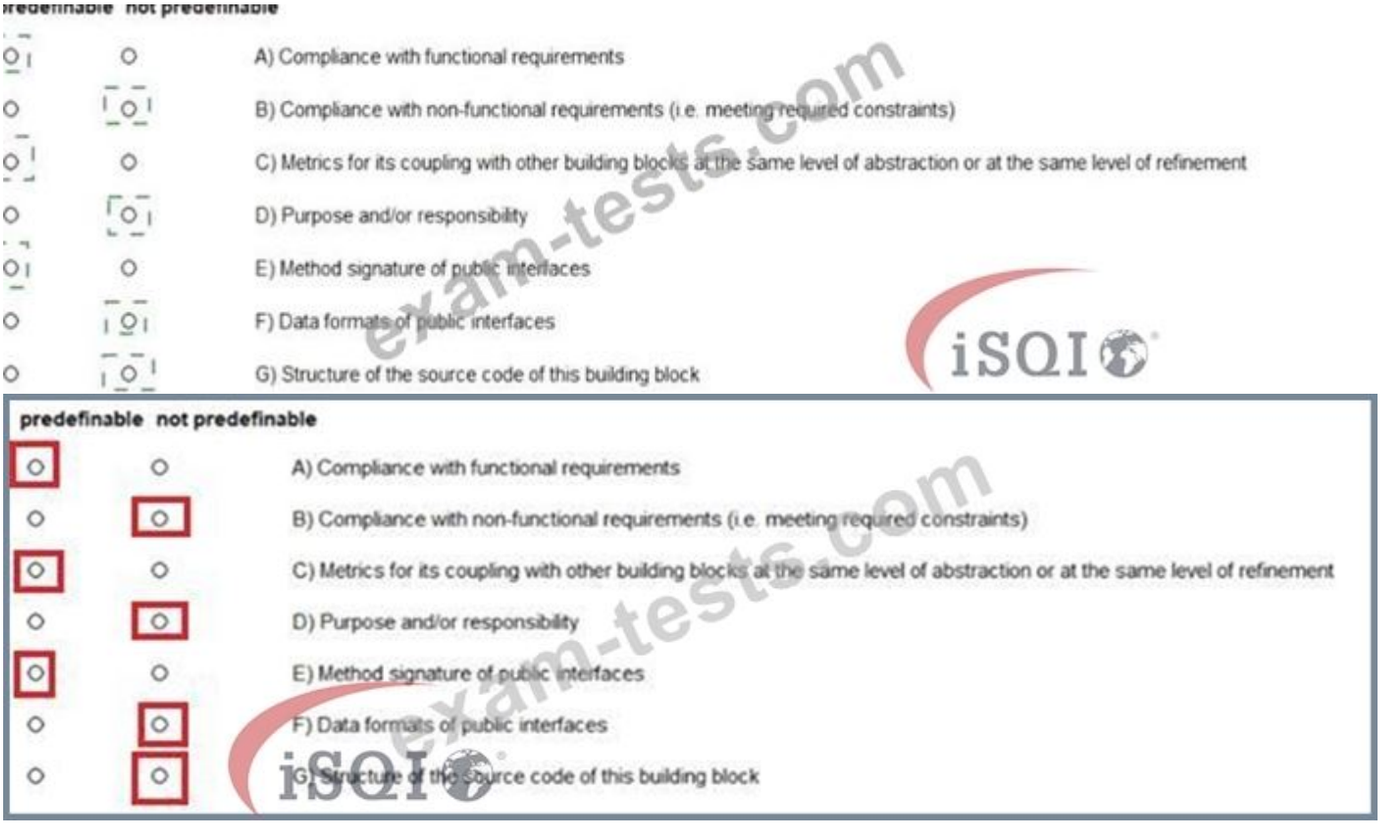
G. Architecture-specific chapters of the quality management manual

Answer: (SHOW ANSWER)

NEW QUESTION: 25
Which characteristics of a black-box building block are you able to specify as an architect? K-Question.
Assign all answers

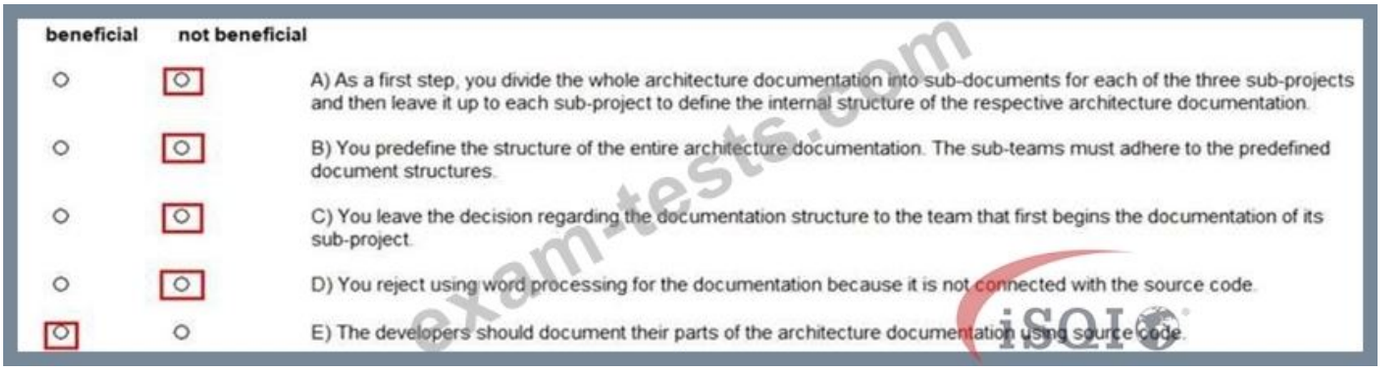


Answer:



NEW QUESTION: 26
You are responsible for the documentation of the software architecture of a large development project. The project consists of three teams, each with its own architect, but with you as the person having overall responsibility of the entire project's software architecture.
Which of the following measures are beneficial? (Assign all answers.)

Answer:



NEW QUESTION: 27

Select the two most appropriate methods for evaluating the reliability of a software system. P-Question. From the following 5 answers select 2 that fit best.

A. Conducting an AT AM evaluation

B. Measurement of 'Mean-Time-between-Failure'

C. Determination of the cyclomatic complexity

D. Execution of performance tests

E. Determining the number of 'lines of code'

Answer: (SHOW ANSWER)

NEW QUESTION: 28

Choose the most desirable characteristics of interfaces. P-Question: From the following 7 answers select 3 that fit best

A. Clear descriptions of assertions and prerequisites

B. Easy to extend

C. Geared towards the capabilities of the provider

D. Hard to misuse

E. As few parameters as possible

F. Remotely callable

G. Scalable to many consumers

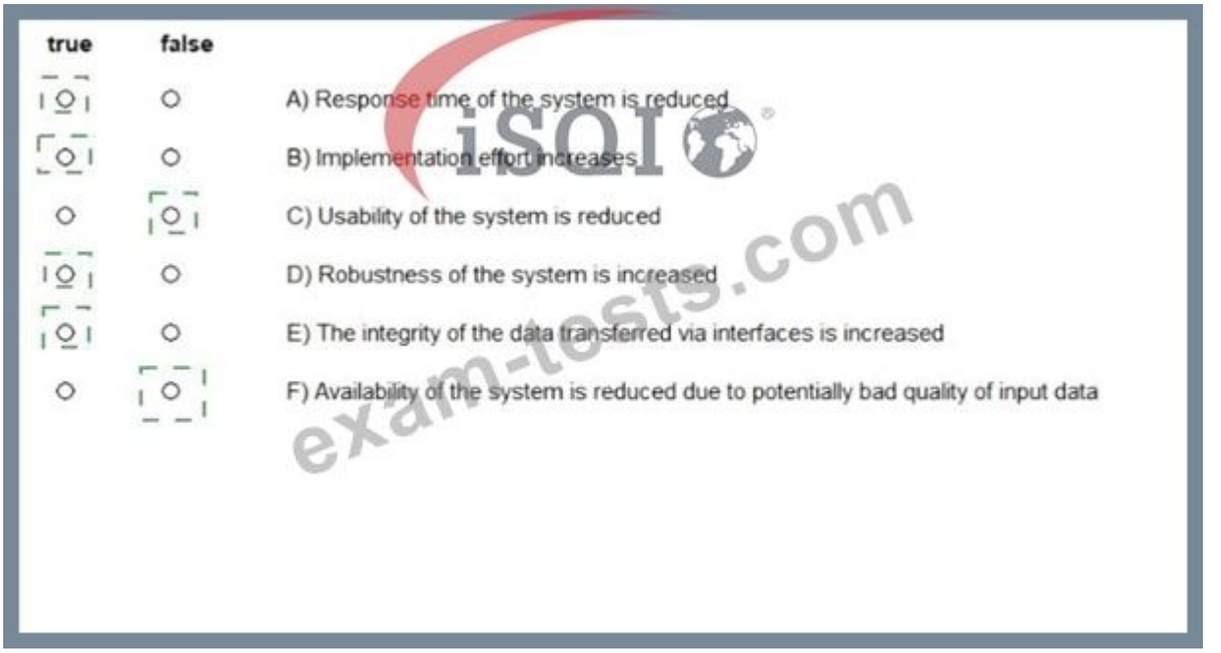
Answer: A,D,E (LEAVE A REPLY)

NEW QUESTION: 29

Concerning external interfaces. Postel's law suggests: "Be conservative in what you do. be liberal in what you accept from others." Assume that Postel's law has been consistently applied in your system. K-Question Assign all answers.

true	false	
○	○	A) Response time of the system is reduced
○	○	B) Implementation effort increases
○	○	C) Usability of the system is reduced
○	○	D) Robustness of the system is increased
○	○	E) The integrity of the data transferred via interfaces is increased
○	○	F) Availability of the system is reduced due to potentially bad quality of input data

Answer:

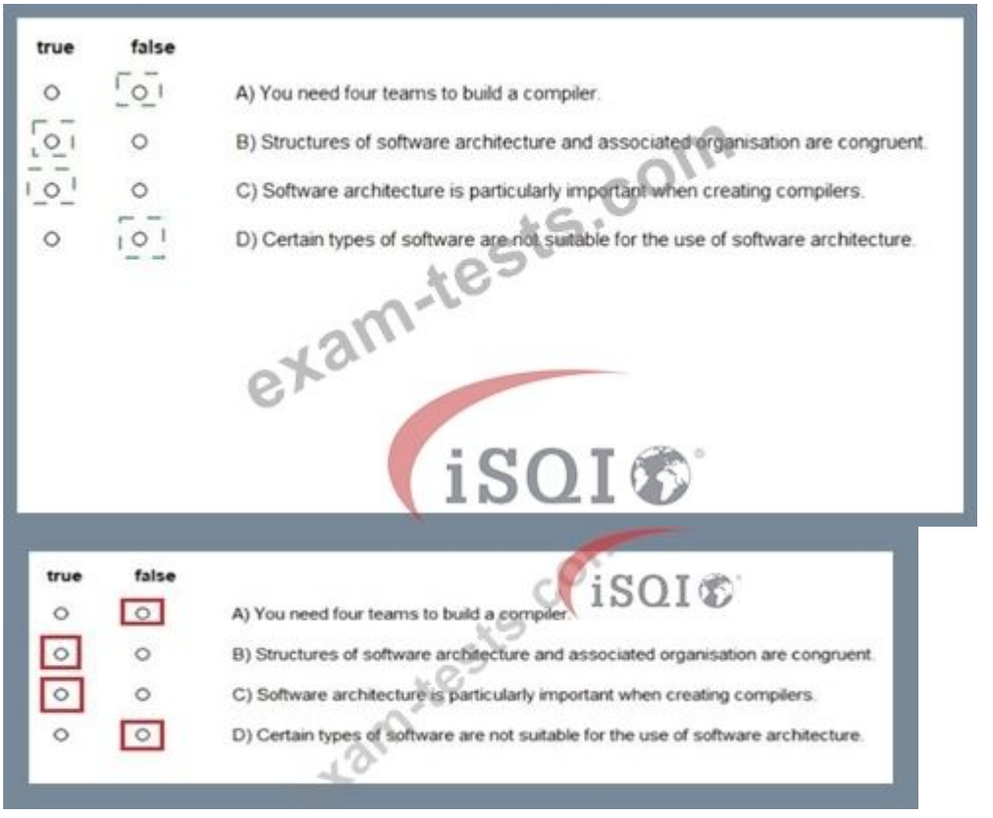


Explanation
TRUE = ABDE
FALSE = CF

NEW QUESTION: 30

Conway's law sometimes is referred to as "If you have four teams working on a compiler, you'll get a 4-pass compiler' Which interpretations of this law are true, which are false? K-Question: Assign all answers.

Answer:



NEW QUESTION: 31

Which two of the following requirements are examples of quality requirements? (Choose two.)

A. User should be able to select the sort order freely.

B. Spelling is corrected automatically.

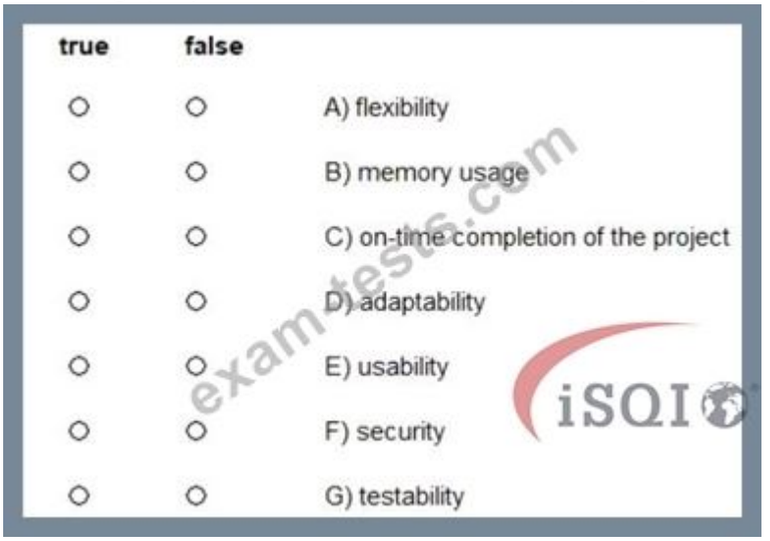
C. Up to 40,000 requests per day

D. Failure rate is less than 0.1%.

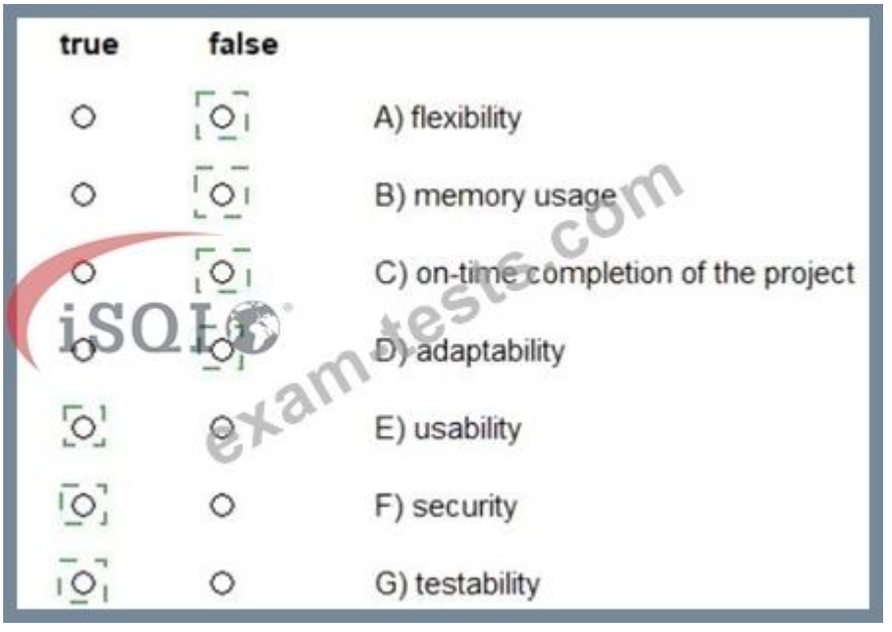
Answer: (SHOW ANSWER)

NEW QUESTION: 32

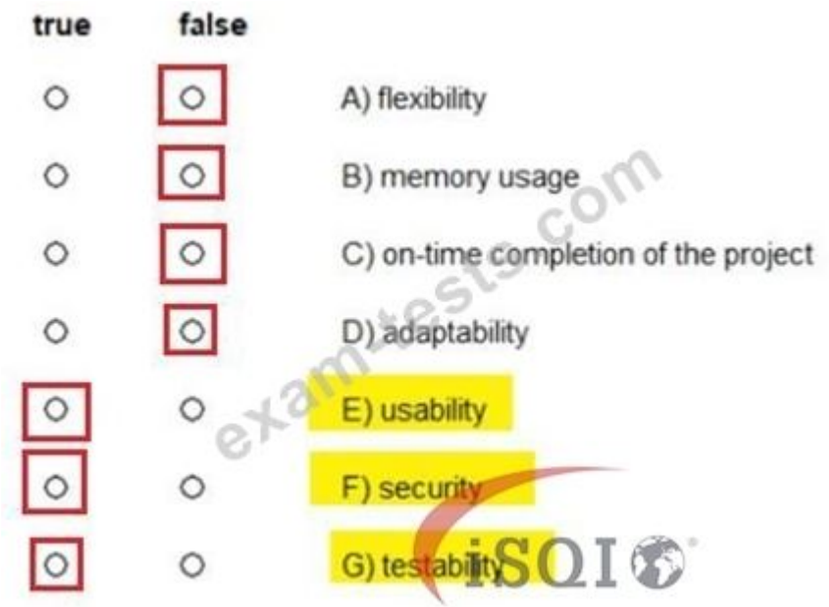
Decide if the following statements are true or false. The performance of a system (response time or throughput) often competes with its... (Assign all answers.)



Answer:



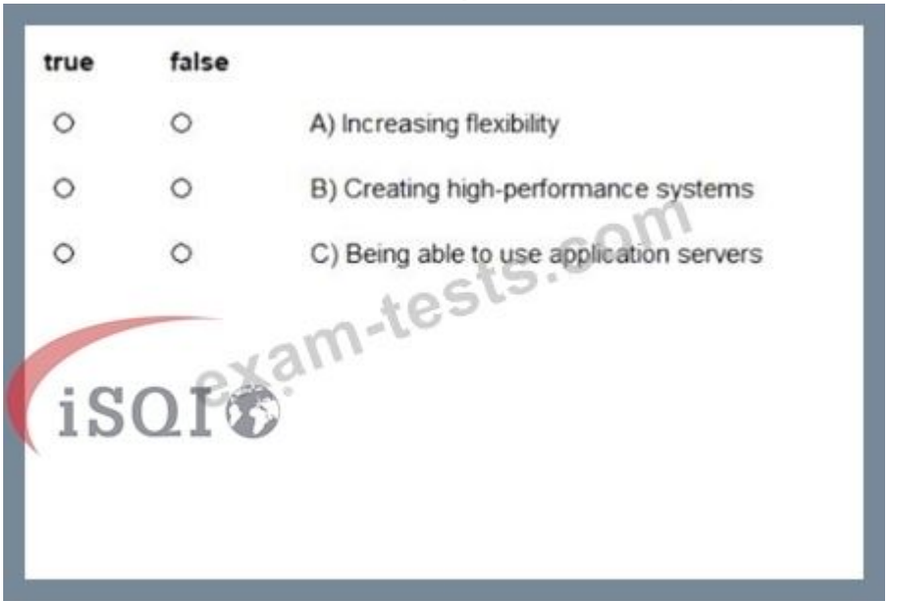
Explanation



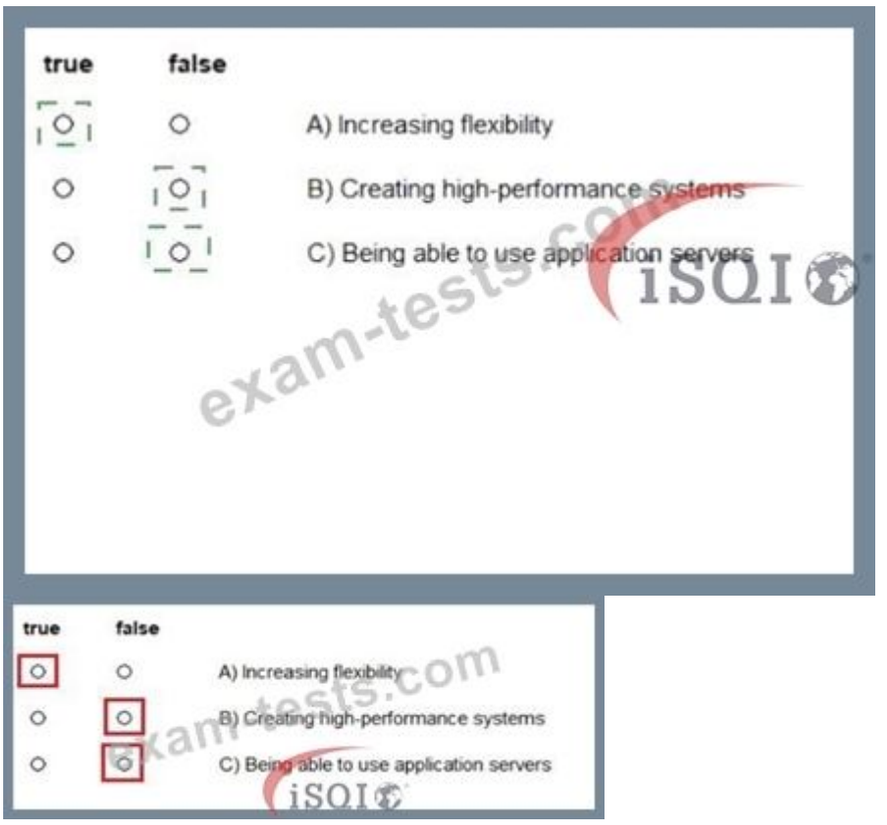
References:

NEW QUESTION: 33

What is the main benefit of the layered architectural pattern? K-Question: Assign all answers



Answer:



NEW QUESTION: 34
Which of the following statements are covered by the term 'coupling'? P-Question. From the following 4 answers select 2 that Fit best.
A. A building block uses an interface of another building block
B. A building block uses internal data structures of another building block.
C. A building block only contains operations that belong together logically
D. Two building blocks offer operations with the same name
Answer: (SHOW ANSWER)

NEW QUESTION: 35
Name the three most important fields of template-based architecture documentation. (Choose three.)
A. To use a standardized document structure
B. To describe individual architectural modules and their external interfaces (black boxes)
C. To reuse code and test case templates
D. To describe module structures (white boxes)
E. To use copyright templates for a consistent description of project/system meta information within documents and source codes
Answer: A,B,D (LEAVE A REPLY)

NEW QUESTION: 36
Which of the following principles apply to testing? (Choose two.)

A. Where many errors exist, more errors are usually hidden.
B. Sufficient testing will show that a program is free of errors.
C. In general, exhaustive testing is not possible.
D. Error-free test runs also mean: the software is usable.
Answer: B,C (LEAVE A REPLY)