1. Activity diagrams are used to support | The process view

2. With a good software design, which is benefit we will get | b. It helps to coordinate development teams to work together orderly

3. Which of the following is advantage of broker architecture| a. Changeability and extensibility

4. The outcomes of Object Oriented Analysis stage are| Requirement Specification, Initial logic structure of the system

5. Which of the following if limitation of compare with| b. Reliability and overhead of indirect invocations

6. Package diagram is grouped in which of following UML diagram category| a. Structure diagram

7. The Architectural Decision Procedure includes following steps| 2-1-3

8. Design produces architectures that specify products and components in the form of which of the following| c. A detail-level design solution

9. Which of the following is TRUE for implementing the separation of the user interface from the logic of software system| b. The same logic can be accessed by different kinds of user interfaces

10. The constituent parts of the architecture of a system are which of the following| a. Its component, connectors, and the rules governing their interactions

11. Which diagram equivalent to a sequence diagram| d. Collaboration diagram

12. Which of the following is NOT benefit of distributed architecture| c. Testability

13. Which of the following architecture is suitable for the embedded system software design| b. Process-Control Architecture

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development| b. PAC architecture

15. Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message| a. Based on connector’s information carrier

16. ATAM is which of the following methods| a. Architecture Trace-off Analysis Method

17. Repository architecture and Backboard architecture is categorized into which of the following architecture style| a. Data-centered architecture style

18. Which of the following is TRUE?| c. Hardware independence does not imply software independence

19. Which of the following is one limitation of Client/Server architecture| c. Server availability and reliability

20. Which of the following is limitation of message-driven architecture| a. Capacity limit of message queue

21. When will you apply the Batch Sequence architecture| a. Developing a system where each sub-system reads related input files and writes output files.

22. Which of the following attributes which could be observable at runtime| a. Availability, Security, Performance

23. Which of the following is one of advantages of Component-Based architecture| c. Productivity for the software development and future software development

24. The usability of a user interface is enhanced by consistency and integration| a. The usability of a user interface is enhanced by consistency and integration

25. Which of the following is a limitation of Layered architecture| a. Lower runtime performance

26. User interface Evaluation does NOT focus on which of following features| a. Only the tailor –able of the user interface

27. Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute| c. Productivity

28. Which of the following is a limitation of component architecture| a. Adaption of components

29. The acronym SAPCO is used for which of following purpose| b. Describing the Satisfactory principles of user interface

30. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design| a. If the two elements are mapped to a single process, the connector could be mapped to local method invocation

31. Polymorphism principles mean that….| An object can have different appearance/behaviors under difference circumstances

32. Availability refers to…| a system’s capability to be available 24/7

33. Which of the following is NOT an architecture style in hierarchical architecture| a. Client-Server architecture

34. Which of the following is the limitation of Repository Architecture Style?| c. Data store reliability availability is a very important issue

35. a. High dependency between data structure of data store and its agency| a. High dependency between data structure of data store and its agency

36. Which of the following is NOT a buffer- based software architecture| a. Peer-to-peer connection

37. Which of the following is a buffer- based software architecture| b. Publish-Subscribe Messaging(P&S)

38. In UML 2.0, which diagram derived from use case scenarios| c. Use-case diagram

39. Which of the following is an Open-Close principle’s implication| c. Keep attributes private

40. Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing

41. In Client-Server architecture style, there are follow types| B- Thin-client, Fat-client

42. In Thin-client type, the server includes which of the following processing | C- Data storage processing, Business Logic Processing

43. In Fat-client type, the server includes which of the following processing| A- Presentation processing, Business Logic Processing

44. Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| Blackboard

45. Which of following structures describe the static properties of software architecture| a. Software code structure.

46. Which of following structures describe the dynamic properties of software architecture| b. Software runtime structure

47. Which of the following notations is used to support the physical view| d. None of the above

48. Which of the following are benefits of OO design| e. All of the above.

49. Which of the following are features of OO methodology| c. Inheritance

50. Which are the categories of operations that a class can provide| b. Constructor, Destructor, Accessor, Mutator

51. Polymorphism implies the following: < knowledge of OOP, need review>| d. All of the others

52. Which of the following are considered as Runtime attribute| d. Availability, Security, Performance, Usability

53. Which of the following is not an Open-Closed principle’s implication| a. Feel free to change software code

54. What is a class involved in accomplishing the responsibility of a class called in CRC modeling| c. Collaborator

55. Which of the following diagram is NOT an structural diagram| d. Sequence diagram

56. In UML 2.0 Which of the following is true| b. Sequence Diagram both concurrencies and loops can be specified

57. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression| c. An object named “John” whose class is “Doctor”

58. Which of the following is Open-Closed principle| d. Open to extension, Close to modification

59. Which is not a structure which can be described in a software architecture| a. Dynamic structure

60. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios| d. Logical view

61. Which of the following are not benefits of pipe and filter| b. Interactive

62. Which of the following are not benefits of batch sequential| f. All of the above

The below image is a snapshot of which architecture styles following| d. Event-based architecture

64. The follow image is an example of| d. Repository architecture

65. Which of the following is true about buffered message system| d. All of the others

66. The below image is a snapshot of which architecture styles following| b. Repository architecture

67. Which of the following architecture is suitable for the embedded system software design| c. Process-Control Architecture

68. Which of the following is an Open-Close principle’s implication| b. Separate interface and implementation

69. Based on connector’s information carrier, the connectors in software architecture might be classification into | b. Variable, Environment resource, Method, Message

70. Which of the following diagram called| c. Sequence diagram

71. Polymorphism principles means that| a. An object can have different appearance/behaviors under different circumstances.

72. Which of the following are considered as Business attributes| d. Time to market, Lifetime, Cost

73. When will you apply the Process-Control architecture| a. Developing a system which needs to maintain an output data at a stable level

74. The Architectural Decision Procedure includes following steps| c. 2 => 1 => 3

75. ATAM is which of the following methods| c. Architecture Trade-off Analysis Method

76. Which of the following is one of distributed architecture| b. Service Oriented architecture

77. Which of the following is a PAC architecture benefit| d. All of the others

78. State machine diagram is grouped in which of following UML diagram category| a. Behavioral Diagrams

79. Sequence diagram are used to support| a. The logical view

80. Which of the following is a typical style of Hierarchical architecture| d. Hierarchical structure, Layered, Master-Slave, Virtual Machine

81. The following diagram is a description of which architecture style| a. Blackboard architecture

82. 1) is better because of which following| c. Easy expansion

83. Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following| b. Allows stateful service

84. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline| e. Sequence Diagram

85. In Non-buffered Event-based architecture, how many partitions a system could be broken into| c. 2 partitions

86. Portability refers to | c. The level of independence of the system on software and hardware platforms

87. Which is the benefit of MVC| a. Multiple views synchronized with same data model

c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces | c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

89. Which diagram is equivalent to a sequence diagram?| c. State machine diagram

90. Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system| d. The same logic can be accessed by different kinds of user interfaces.

94. Which of the followings are not benefits of batch sequential| f. All

95. Which of the following is not a benefit of repository architecture| c. Concurrency

96. Which of the following is a typical design domain of blackboard architecture| a. AI system

97. Which of the following is not a benefit of hierarchical architecture| b. Interactive

98. Which of the following is a disadvantage of hierarchical architecture| c. Incremental

99. Which of the following is one of the benefits of asynchronous architecture| d. Loose coupling of modules

100. Which of the followings is not typical design domain of the asynchronous architecture| c. Web server site application

101. Which of the following is not a benefit of the MVC architecture| a. Supports multiple independent agents

102. Which of the following is a typical design domain for the MVC architecture| c. Web server site application

103. Which of the following is not one of the benefits of distributed architecture| c. Supports multiple views

104. Which of the following is not a typical style of distributed architecture| b. Hierarchical structure

106. Which of the following is not a benefit of component architecture| a. Performance

108. Which of the following is true about heterogeneous architecture| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

114. In SOA architecture, Interoperability means what| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

118. SAPCO stands for which| a. It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other

121. In user interface evaluation step, we should focus on what| c. The usability of the interface

At software developement time, the software element are| source code modules or files which...

Which of following is Not True about Detailed design step?| We will describe...

For sofware project resource allocation, the sofware element are..| Specific manipulation

129. UML diagrams are \_\_\_\_\_\_\_\_ which are used for system analysis and design| Tools

Which of the following is NOT TRUE about Architecurak design step| Wel will describe the interconnection the components which visible to stakeholders

Which of the design below is better| Co 3 draw o duoi

At sofware deployment time, the sofware element are\_\_\_| The executable version

Architects use\_\_\_in sofware construction to divide and conquer the complexities of a problem domain to solve the problem.| Various design strategies

What is an arechitecture design space| dai nhat thi chon

Which is not a structure which can be described in a sofware architecture?? Dynamic structure

The following diagram is a description of which architecture style?| 3 angent -> data source. DAP AN: REPOSITORY

When you apply Layered Architechture style into system architecture design , why run time performance of the system might be slow| A client request or a response to client must go through potentially several layrers.

Batch Sequence Architecture| Batch Sequence Architecture

Which the reasoning method that starts with the initial state of data and proceeds towards a goal| Forward Reasoning

Which of the following are benefits of Non-buffered Event Based architecture| Framework availabity ,Reusablity of components, Possibility of parallel execution

You will apply the batch sequential architecture when?| Developing a system where intermediate file is a sequential access fileWhich is NOT the way to make the data flow in Pipe and Filter architecture| Leave data in a center repository

Which is the purpose of Main-Subroutine Architecture?| To reuse the subroutines

Both Sequential and Parallel processing are supported by| Pipe and Filter Architecture

A Component is NOT\_\_\_. Which is the best choice?| A whole system which could be executed independent

In interaction oriented software architecture,\_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice?| The view presentation module

The key point of the interaction oriented software architecture is \_\_\_ Which is the best answer| C. In the separation of user interaction from data abstraction and business data processing

The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?| B. all of the others

In Interaction oriented software architecture, \_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice?| The data module

Which of the following is the correct statement about Component-based architecture?| - it divides the problem into sub-problem each associated with component partitions

-The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?| 3 major partitions – Data module, Control module, Presentation Module

Which of the following statement is a correct description about the job of an architecture designer?| Exhaust all possible solutions, pick up the best one

Which of the following is the main motivation of Component-based architecture?| Component reusability

What of the following statement about the characteristic in Service-oriented and Broker are Correct?| Both are hard

Which of below description is a benefit of PAC architecture style?| Complete separation

Three-tier and Client-Server architecture| Three-tier and Client-Server architecture

Which is the statement you can describe about MVC architecture style? MVC is now very popular

Which of the following attribute related to time and space?| Efficiency

Which of the following attribute related to error tolerance and avaibility?| Reliability

Which of the following attribute related to hardware independence and installability?| Portability

Which is the reason when you apply component-based architecture, overall system reliability will be increased?| you could increase the reliability....

in MVC, said that it is easy to plug-in new or change interface views mean thich of following? | it allows updating...

what of following characteristic do MVC and PAC both have?| Support for developing

1. Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing (correct)

2. Event-based architecture is difficult to test and debug| A- True (correct)

3. Main- subroutine architecture can also be applied in any object-oriented software design| B- False

4. Component deployment is a good practice in a layered architecture.| A- True

6. Client-server architecture is general is better availability than the multi-tier model| B- False

8. Sequential flow control can be predetermined in batch sequential| A- True

9. Facts are installed in the Blackboard component of the Blackboard architecture?| A- True

10. RPG is widely used to implement batch sequential| A- True

11. Event-based architecture style is a buffered architecture| False

12. Only directly adjacent layers can invoke each other’s methods in a layered architecture.| B- False

13. Java can be used to implement a pipe and filter design system| A- True

14. The control flow in batch sequential is implicit.| True

16. In Thin-client type, the server includes which of the following processing| C- Data storage processing, Business Logic Processing

17. Implicit notification is often used in blackboard architecture| A- True

18. The control flow in pipe and filter is explicit.| A- True

19. FPT’s University CMS is an example of repository design| True

20. The master-slave architecture is a specialized form of main-subroutine architecture|True

21. In Fat-client type, the client includes which of the following processing| A- Presentation processing, Business Logic Processing

22. Repository architecture design could NOT be object-oriented design| True

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True

24. which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| D- Blackboard architecture

25. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| True

The testing of synchronous architecture is more straightforward than asynchronous architecture.| True

27. Two modules in a data flow system can change their order without any constrains.| B- False

28. Multiple event targets can register with same event source.| A- True

29. Hierarchical architecture is a procedure-oriented design paradigm only.| A- False

30. Sequential flow control can be predetermined in pipe and filter.| A- True

32. Which of the following is not an open-close principles’s implication?| b. Feel free to change software code.

33. Architecture design is about choosing the right single architecture style for a project| b. False

34. Software quality attributes must satisfy functional requirements| b. False

35. UML diagrams are used for system analysis and design| a. True

36. The CRC card method in used to identify the responsiblities of each class| True

37. Which of the following notations is used to support the physical view?| d. Non of the others

38. Which of the following are considered as implementation attributes?| a. Interoperability, maintainability, prortability, fexibility

39. Which of the following notations is used to support the logical view?| d. All of the others

40. Pipe-and-Filter is one of the architecture styles| True

41. In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a desscription of a box as follow “John:Doctor”. Which of the following is correct experssion?| a. An object named “John” whose class is “Doctor”

c. Sequence diagram both concurrencies and loops can be specified| c. Sequence diagram both concurrencies and loops can be specified

43. Which of the following diagram is NOT an structural diagram| 43. Which of the following diagram is NOT an structural diagram

44. The purpose of the software design phase is to product a software requirement specification| False

45. What is a class involved in accomplishing the responsibility of a class called in CRC modeling?| a. Collaboration

47. Which of the following is open-close principle?| b. Open to extension, close to modification

48. Use case diagrams are generated in the early stages of the SDLC. Whereas deloyment diagrams are generated in the later stges of the SDLC.| a. True

49. Software architecture design is based on the software requirement specification| True

50. Which are the categories of operations that a class can provide?| b. Constructor, Destructor, Accessor, Mutator

51. Which of the following are considered as Runtime attributes| b. Availability, Security, Performance, Usabilty

52. Object-oriented design is a design methodology| True

53. Which view in “4+1” view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.| a. Logical view

54. Which of the following is a feature of object oriented methodology?| d. Inheritance

55. Which is NOT a structure which can be described in a software architecture?| c. Operation structure

56. Architecture styles contribute to software quality attributes| a. True

57. Which of the following structures descibe the dynamic properties of software architecture?| c. Software runtime structure

58. Abstraction via inheritance is one effctive way to achieve the open-close principle| True

59. Polymorphism implies the following|c. All of the others

60. Which of the following are benefits of object oriented design| e. All of the others

61. Which of the following is an architecture design evaluation methodology?| a. SAAM

62. SAAM relies on scenarios to test an architecture design| b. True

63. Which of the following is NOT a benefit of Component architecture| a. Performance

64. RMI is an example of the broker architecture| b. True

65. Which of the following is NOT a typical style of distributed architecture?| MVC

66. In SOA architecture, Interperability means what?| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

67. Event-based architecture is appropriate for a compiler in an IDE design| a. False.

68. The image below is an example of static style of user interce’slaout? Which which is the correct answer?| a. It’s 1D layout

69. The abstraction and presentation components in a PAC agent do not talk to each other directly| a. True

70. The PAC architecture is a hieracchically structured sofware architecture| a. True

71. There is always onlyone architecture design that can meet all requirements| a. False

a. The usability of a user interface is enhanced by consistency and integration.| a. The usability of a user interface is enhanced by consistency and integration.

73. A component architecture can be derived from use case analysis and business concept diagrams| a. True

74. Which of the following is NOT the benefit of Broker architecture style?| a. Easy in testing

75. Blackboard architecture is difficult to debug and test.| True

76. Modifiability and expandability are essentially the same quality attribute.| False

77. Client-server architecture in general is more scalable than the multi-tier model? False

78. Implicit notication is often used in the MVC architecture.| True

79. Google Map is an example of services in SOA architecture| True

80. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True

81. Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style| True

82. Which of the following is TRUE about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

83. Coupling in message-driven architecture is even looser than in event-driven architecture| a. True

84. Batch sequential architecture is general more time efficient then pipe and filter| False

85. In user interface design step.User-centered factor consideration means what?| d. Designers must take into account the needs, experiences, and capabilities of the system users.

86. Core type classes can be recognized as a new component| True

87. SAPCO stands for which?| a. It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

88. Which is the most appropriate architecture style to develop a radar system like below?| PAC

89. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?| b. Client-side proxy

90. In user interface evaluation step, we should focus on what?| c. The usability of the interface

1. The constituent elements of software architecture are software elements and their connections| False

2. Software architecture design involves many software design methodologies and architecture styles.|True.

3. Software architecture = software architecture styles.| False.

4. Which of the following structures describe the static properties of software architecture?| Software code structure.

5. Different architecture structures have different element and connector types.| True.

6. Element and connector attributes are derived from the project requirements.| True.

7. Divide-and-conquer is not a suitable methodology for architecture design.| False.

8. Deployment decisions should be reflected in early architecture designs.| False.

9. Activity diagrams are used to support the process view.| True.

10. Deployment diagrams are used to support the physical view.| True.

11. Component diagrams are used to support the development view.| True.

12. The software sub modules and their interfaces are described in the logical view.| True.

13. Concurrency control activity is part of the process view.| True

14. System and network configuration decisions are part of the physical view.| True.

15. Software architecture is concerned only with functional requirements.| False.

16. Prototyping can be used to support UI design.| True.

17. ADL is a programming language.| False.

18. ADL can produce target code.| True.

19. ADL is used only for software architecture specification.| False.

20. Composite structure diagrams are based on object diagrams.| True.

21. Component diagrams are based on object diagrams.| True.

22. A UML diagram must provide a complete view of the entire software system.| True.

23. A component is a class or an object.| False.

24. Asynchronous message invocation can be expressed in sequence diagrams.| True.

25. Conditional branching can be represented in sequence diagrams.| True.

26. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.| True.

27. An interaction overview diagram is based on all low-level interaction diagrams.| True.

28. Architecture design is about choosing the right single architecture style for a project| F

1. Which of the following are not benefits of pipe and filter?| Interactive.

2. Which of the followings are not benefits of batch sequential?| Interactive.

3. COBOL is widely used to implement batch sequential.| True.

4. Two modules in a data flow system can change their order without any constraints.| False.

5. Java can be used to implement a pipe and filter design system.| True.

6. The control flow in pipe and filter is explicit.| True.

7. The control flow in batch sequential is implicit.| True.

8. There are data sharing (shared data) among all subsystems in a data flow system.| False.

9. Sequential flow control can be predetermined in pipe and filter.| True.

10. Sequential flow control can be predetermined in batch sequential.| True.

1. Which of the following is not a benefit of repository architecture?| Concurrency.

2. Which of the following is a typical design domain of blackboard architecture?| AI system.

3. The Yellow Page of web service is an example of repository design.| True.

4. Implicit notification is often used in blackboard architecture.| True.

5. Repository architecture design must also be object-oriented design.| False.

6. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True.

7. Loose coupling is used between repository agents.| True.

8. There is tight dependency of agents on the data store in the repository architecture.| True.

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| False.

10. The facts or hypotheses are stored in the knowledge source component of a blackboard system.| False.

1. Which of the following is not a benefit of hierarchical architecture?| Concurrency.

2. Which of the following is a disadvantage of hierarchical architecture?| Overhead.

3. Web service is an example of hierarchy architecture design.| True.

4. Hierarchical architecture is a procedure-oriented design paradigm only.| False.

5. Hierarchical architecture can also be applied in any object-oriented software design.| True.

6. Only directly adjacent layers can invoke each other’s methods in a layered architecture.| False.

7. Component deployment is a good practice in a layered architecture.| True.

8. There is data sharing between all layers in a layered architecture.| False.

9. The callback method is typically used in a main-subroutine architecture.| False.

10. The master-slave architecture is a specialized form of main-subroutine architecture.| True.

11. Which of the following is not one of the benefits of distributed architecture?| Supports multiple views

12. Which of the following is not a typical style of distributed architecture?| Hierarchical architecture.

13. Client-server architecture in general is more scalable than the multi-tier model.| False.

14. CORBA is an example of the broker architecture.| True.

15. Web service is an example of SOA architecture.| True.

3. CCM is a target technology for component technology.| a. True

4. Each component may have its provided ports and required ports from other components.| a. True

5. Each component must have its provided ports and required ports| b. False

6. The provided interface ports may be in synchronous or asynchronous modes.| a. True

7. A component architecture can be derived from use case analysis and business concept diagram.| a. True.

8. Core type classes can be recognized as a new component.| a. True.

9. A core type component does not depend on any other classes.|a. True.

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True.

1. Which of the following is used to evaluate architecture designs?| d. ALL

2. Which of the following is true about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

3. Modifiability and expandability are essentially the same quality attribute.| False

4. SAAM relies on use cases to test an architecture design.| False

5. There is always an architecture design that can meet all requirements.| False

6. Service-oriented architecture is stateless, while component-based architecture is not.| True

7. Batch sequential architecture is generally more time efficient than pipe and filter.| False

8. It is beneficial to integrate architecture design with the process of requirements analysis| a. True

9. Event-based architecture is a good candidate for interactive systems with graphic user interface.| True

10. Blackboard architecture is difficult to debug| True

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.| Fasle

2. Chapter 3 of this book, on “models for software architecture,” has nothing to do with user interfaces described in this chapter.| False

3. User interface refers to static components and their layout, not dynamically displayed information.| False

4. The MVC models suggest the separation of the user interface from the logic of the software system?| a. True.

6. The look and feel of a user interface can be defined by using engineering rules.| False

7. A customizable user interface is not a good style since it will confuse users.| False

8. The usability of a user interface is enhanced by consistency and integration.| True

9. The acronym SAPCO describes| c. The satisfactory principles of user interfaces

10. The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.| True

1. The constituent parts the architecture of a system are:| a. Its components, connectors, and the rules governing their interactions

2. Domain analysis identifies the various common features in a domain and their differences.| True

3. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.| False

4. Product line processes are a way to institutionalize systematic reuse.| False

5. Design-for-commonality anticipates variation without compromising commonality.| False

6. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.| True

7. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach.| True

8. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.| False

9. Reuse is not an end in itself but a means to an end.| True

10. Reusable assets are limited to code components.| False

11. Software components do not need adaption.| b. False

12. Horizontal reuse refers to the use of an asset across several distinct domains or different product line.| a. True

Which of the following is not a benefit of the MVC architecture?| Support multiple independent agents

Which of the following is a typical design domain for the MVC architecture?| Web server site application

Traffic control agents in a city traffic management system may be designed using PAC.| True

Implicit notification is often used in the MVC architecture.| True

The data in the Model component of the MVC architecture is active| True

The data in the Abstraction component of a PAC agent is passive.| True

PAC agents are loosely couple.| True

The Abstraction and Presentation component in a PAC agent do not talk to each other directly.| True

The "Look and Feel" feature is well supported in the MVC architecture.| True

The PAC architecture is a hierarchically structured software architecture.| True

Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

Which is the reason why software reuse is critical? | A. All of the others

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | A. 2 partitions

Which is NOT a software structure that software architecture can be described with? | C. State structure

Choose the incorrect statement. | C. UML diagram could be group into 3 major categories: Structural, Behavioral and Deployment.

Which is the correct order of these steps? | Determine… => Quantify… => Compute…

According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be? | B.Method

Availability refers to \_\_\_\_ | D. The ability of a system to be available 24x7

Portability refers to \_\_\_\_ | A. The ability to modify the system and extend it conveniently.

In User Interface design step, Information representation factor consideration means what?|A. Designers must take into account the needs, experiences, and capabilities of the system users.

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | C. Component-based > Object-oriented > Functional-oriented > Service-based

Quality attributes could be categorized into 3 groups which are? | A. Implementation attributes, Runtime attributes, Business attributes

In Layered architecture, the interface of each layer encapsulates \_\_ | A. All detailed service implementations in the current layer and the interfaces of the layers below.

You will apply the batch sequential architecture when? | A. Developing a system where intermediate file is a sequential access file.

Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate response? | D. Buffered message-based architecture

Which is the correct order in Object oriented design process? | Identify => Build=>Construct=>Class overview=>Class Detail

Which view in "4+1" view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc.? | A. Logical view

Polymorphism implies \_\_\_\_\_ | A. The invocation of a method is determined at run time

In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output data? | C. Batch sequential architecture

Which of the following is a INCORRECT description about component in Component-based architecture? | C. A Component is NOT a modular.

Which is the CORRECT statement about a pipe? | B. A Pipe moves a data stream from one filter to another.

In UML 2.0, Which of the following is TRUE? | C. Sequence Diagram describes time sequence of messages passed between objects in timeline.

Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute? | C. Efficiency D. Productivity E. Functionality

Which of the following is TRUE about buffered message system? | B. All of the others

Which of the following is NOT the benefit of Broker architecture style? | A. Easy in testing.

Which of the following is a limitation of Layered architecture? | D. Lower runtime performance

Three Object Oriented Principles are which of following? | D. Encapsulation, Inheritance, Polymorphism

Which of the following are PAC architecture's benefits? | B. All of the others

In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice? | C. The view presentation module

In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice? | B. The data module

atam a controller takes which role? | B. It takes a bootstrap role and overall supervision control.

Which of the following is the INCORRECT statement about passive filter? | B. It lets connected pipes to push data in and pull data out.

UML diagrams are \_\_\_\_ which are used for system analysis and design | C. Tools

According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | B. Blocking

Which of the following is buffer-based software architecture? | A. Peer-to-Peer connection

Security belongs to which of the following quality attributes group? | C. Runtime attributes

What is the CORRECT statement about virtual repository? | D. A virtual repository is built up on the top of multiple physical repository

What is the INCORRECT statement about distributed repository? | B. All data are centralized

Which of the following is an Open-Close principle's implication? | A. Separate interface and implementation

Which of the following is NOT an architecture style in hierarchical architecture? | C. Client-Server architecture

For software project resource allocation, the software element are \_\_\_\_ | A. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module below? | D. Controller module

Which of the following is used to evaluate architecture design? | A. All of the others

Activity diagrams are used to support \_\_\_\_ | C. The process view

In User Interface design step, Friendliness factor consideration means what? | C. The behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

Which of the following is a benefit of component-based architecture? | C. Independency and flexible connectivity of components

According to IEEE Standard 1471, The system architecture is \_\_\_\_ | C. A collection of components organized to accomplish a specific function or set of functions.

In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | E. Skeleton

In Thin-Client type, the server includes which of the following processing. | B. Data Storage Processing, Business Logic Processing

Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture

Which of the following statement is TRUE? | D. The usability of a user interface is reduced by consistency and integration.

Which architecture style supports loose coupling between legacy systems and modern systems for integration development? | A. Buffered message-based architecture

Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

Event-based architecture is difficult to test and debug | True (correct)

Main- subroutine architecture can also be applied in any object-oriented software design | True

Component deployment is a good practice in a layered architecture. | True (correct)

In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

Client-server architecture is general is better availability than the multi-tier model | False (correct)

The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

Sequential flow control can be predetermined in batch sequential. | True (correct)

Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

RPG is widely used to implement batch sequential | True….

Event-based architecture style is a buffered architecture | False

Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False

Java can be used to implement a pipe and filter design system. | True

The control flow in batch sequential is implicit. | True

The following image is an example of one of architecture style below. Which is the best choice?|Process-Control architecture

In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

Implicit notification is often used in blackboard architecture. | True

The control flow in pipe and filter is explicit. | True

FPT’s University CMS is an example of repository design | True

The master-slave architecture is a specialized form of main-subroutine architecture | True

In Fat-client type, the client includes which of the following processing | Presentation processing, Business Logic Processing

Repository architecture design could NOT be object-oriented design | True

Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True

which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

The testing of synchronous architecture is more straightforward than asynchronous architecture.|True

Two modules in a data flow system can change their order without any constrains. | False

Multiple event targets can register with same event source. | True

Hierarchical architecture is a procedure-oriented design paradigm only.False

Sequential flow control can be predetermined in pipe and filter. |True

Which of the following is not an open-close principles’s implication? | Feel free to change software code.

Architecture design is about choosing the right single architecture style for a project | False

Software quality attributes must satisfy functional requirements | False

UML diagrams are used for system analysis and design | True

The CRC card method in used to identify the responsibilities of each class | True

Which of the following notations is used to support the physical view? | Non of the others

Which of the following are considered as implementation attributes? | Interoperability, maintainability, portability, flexibility

Which of the following notations is used to support the logical view? | All of the others

Pipe-and-Filter is one of the architecture styles | True

In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression? | An object named “John” whose class is “Doctor”

In UML 2.0 Which of the following is true? | Sequence diagram both concurrencies and loops can be specified

Which of the following diagram is NOT an structural diagram | Sequence diagram

The purpose of the software design phase is to product a software requirement specification|False

What is a class involved in accomplishing the responsibility of a class called in CRC modeling?|Collaboration

Which is the following diagram called?

a. Class diagram

b. Package diagram

c. Component diagram

d. Deployment diagram

e. Object diagram

Which of the following is open-close principle? | Open to extension, close to modification

Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.| True

Software architecture design is based on the software requirement specification | True

Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usabilty

Object-oriented design is a design methodology | True

Which view in “4+1” view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc. | Logical view

Which of the following is a feature of object oriented methodology? | Inheritance

Which is NOT a structure which can be described in a software architecture? | Operation structure

Architecture styles contribute to software quality attributes | True

Which of the following structures describe the dynamic properties of software architecture?|Software runtime structure

Abstraction via inheritance is one effective way to achieve the open-close principle | True

Polymorphism implies the following: | All of the others

Which of the following are benefits of object oriented design? | All of the others

Which of the following is an architecture design evaluation methodology? | SAAM

SAAM relies on scenarios to test an architecture design | True

Which of the following is NOT a benefit of Component architecture | Performance

RMI is an example of the broker architecture | True

Which of the following is NOT a typical style of distributed architecture? | MVC

In SOA architecture, Interperability means what? | Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

Event-based architecture is appropriate for a compiler in an IDE design | False

The image below is an example of static style of user interce’slaout? Which which is the correct answer? | It’s 1D layout

The abstraction and presentation components in a PAC agent do not talk to each other directly|True

The PAC architecture is a hierarchically structured software architecture | True

There is always only one architecture design that can meet all requirements | False

Which of the following statements is TRUE? | The usability of a user interface is enhanced by consistency and integration.

A component architecture can be derived from use case analysis and business concept diagrams|True

Which of the following is NOT the benefit of Broker architecture style? | Easy in testing

Blackboard architecture is difficult to debug and test. | True

Modifiability and expandability are essentially the same quality attribute. |False

Client-server architecture in general is more scalable than the multi-tier model | False

Implicit notication is often used in the MVC architecture | True

Google Map is an example of services in SOA architecture | True

The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style | True

Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Batch sequential architecture is general more time efficient then pipe and filter | False

In user interface design step.User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

Core type classes can be recognized as a new component | True

SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

Which is the most appropriate architecture style to develop a radar system like below? | PAC

In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture Style? | Client-side proxy

In user interface evaluation step, we should focus on what? | The usability of the interface

The constituent elements of software architecture are software elements and their connections. | False

Software architecture design involves many software design methodologies and architecture styles. | True.

Software architecture = software architecture styles. | False.

Which of the following structures describe the static properties of software architecture?|Software code structure.

Different architecture structures have different element and connector types. | True.

Element and connector attributes are derived from the project requirements. | True.

Divide-and-conquer is not a suitable methodology for architecture design. | False.

Deployment decisions should be reflected in early architecture designs. | False.

Activity diagrams are used to support the process view. | True.

Deployment diagrams are used to support the physical view. | True.

Component diagrams are used to support the development view. | True.

The software sub modules and their interfaces are described in the logical view. | True.

Concurrency control activity is part of the process view.

System and network configuration decisions are part of the physical view. | True.

Software architecture is concerned only with functional requirements. | False.

Prototyping can be used to support UI design. | True.

ADL is a programming language. | False.

ADL can produce target code. | True.

ADL is used only for software architecture specification. | False.

Composite structure diagrams are based on object diagrams. | True.

Component diagrams are based on object diagrams. | True.

A UML diagram must provide a complete view of the entire software system. | True.

A component is a class or an object. | False.

Asynchronous message invocation can be expressed in sequence diagrams. | True.

Conditional branching can be represented in sequence diagrams. | True.

An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True.

An interaction overview diagram is based on all low-level interaction diagrams. | True.

Architecture design is about choosing the right single architecture style for a project | F

Which of the following are not benefits of pipe and filter? | Interactive.

Which of the followings are not benefits of batch sequential? | Interactive.

COBOL is widely used to implement batch sequential. | True.

Two modules in a data flow system can change their order without any constraints. | False.

Java can be used to implement a pipe and filter design system. | True.

The control flow in pipe and filter is explicit. | True.

The control flow in batch sequential is implicit. | True.

There are data sharing (shared data) among all subsystems in a data flow system. | False.

Sequential flow control can be predetermined in pipe and filter. | True.

Sequential flow control can be predetermined in batch sequential. | True.

Which of the following is not a benefit of repository architecture? | Concurrency.

Which of the following is a typical design domain of blackboard architecture? | AI system.

The Yellow Page of web service is an example of repository design. | True.

Implicit notification is often used in blackboard architecture. | True.

Repository architecture design must also be object-oriented design. | False.

Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True.

Loose coupling is used between repository agents. | True.

There is tight dependency of agents on the data store in the repository architecture. | True.

Rule-based knowledge is installed in the blackboard component of the blackboard architecture.|False.

The facts or hypotheses are stored in the knowledge source component of a blackboard system.|False.

Which of the following is not a benefit of hierarchical architecture? | Concurrency.

Which of the following is a disadvantage of hierarchical architecture? | Overhead.

Web service is an example of hierarchy architecture design. | True.

Hierarchical architecture is a procedure-oriented design paradigm only. | False.

Hierarchical architecture can also be applied in any object-oriented software design. | True.

Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False.

Component deployment is a good practice in a layered architecture. | True.

There is data sharing between all layers in a layered architecture. | False.

The callback method is typically used in a main-subroutine architecture. | False.

The master-slave architecture is a specialized form of main-subroutine architecture. | True.

Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

Client-server architecture in general is more scalable than the multi-tier model. | False.

CORBA is an example of the broker architecture. | True.

Web service is an example of SOA architecture. | True.

CCM is a target technology for component technology. | True.

Each component may have its provided ports and required ports from other components.|True

Each component must have its provided ports and required ports.| False.

The provided interface ports may be in synchronous or asynchronous modes. | True

A component architecture can be derived from use case analysis and business concept diagram. | True.

Core type classes can be recognized as a new component. | True.

A core type component does not depend on any other classes. | True.

The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True.

Which of the following is used to evaluate architecture designs? | ALL

Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

Modifiability and expandability are essentially the same quality attribute. | False.

SAAM relies on use cases to test an architecture design. | False.

There is always an architecture design that can meet all requirements. | False.

Service-oriented architecture is stateless, while component-based architecture is not.|True.

Batch sequential architecture is generally more time efficient than pipe and filter.| False.

It is beneficial to integrate architecture design with the process of requirements analysis.|True.

Event-based architecture is a good candidate for interactive systems with graphic user interface.| True.

Blackboard architecture is difficult to debug. | True.

A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | False.

Chapter 3 of this book, on “models for software architecture,” has nothing to do with user interfaces described in this chapter. | False.

User interface refers to static components and their layout, not dynamically displayed information. | False.

The MVC models suggest the separation of the user interface from the logic of the software system? | True.

The look and feel of a user interface can be defined by using engineering rules. | False.

A customizable user interface is not a good style since it will confuse users. | False.

The usability of a user interface is enhanced by consistency and integration. | True.

The acronym SAPCO describes | The satisfactory principles of user interfaces

The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.|True.

The constituent parts the architecture of a system are: | Its components, connectors, and the rules governing their interactions.

Domain analysis identifies the various common features in a domain and their differences. | True.

Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.|False.

Product line processes are a way to institutionalize systematic reuse.| False.

Design-for-commonality anticipates variation without compromising commonality.|False.

A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals. | True.

The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach. | True.

A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False.

Reuse is not an end in itself but a means to an end. | True.

Reusable assets are limited to code components. | False.

Software components do not need adaption. | False.

Horizontal reuse refers to the use of an asset across several distinct domains or different product line. | True.

Which of the following is not a benefit of the MVC architecture? | Support multiple independent agents

Which of the following is a typical design domain for the MVC architecture? | Web server site application

Traffic control agents in a city traffic management system may be designed using PAC. | True

Implicit notification is often used in the MVC architecture. | True

The data in the Model component of the MVC architecture is active | True

The data in the Abstraction component of a PAC agent is passive. | True

PAC agents are loosely couple. | True

The Abstraction and Presentation component in a PAC agent do not talk to each other directly.|True

The "Look and Feel" feature is well supported in the MVC architecture.| True

The PAC architecture is a hierarchically structured software architecture. |True

A \_\_\_ is a collection of computational and storage devices connected through a communications network. | Distributed system

Which kind of class is not used in ananalysis class diagram? | Concrete class

Which of the following is NOT buffer-based? | Callback

When do we use pipe & filter architecture? | All of the others

Which is a deployable software package that can provide services to its clients? | Component

For a large-scale software project, \_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness | heterogeneous architecture

The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions:\_\_\_\_\_\_\_and. | evene sources/event receivers

The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ | composite diagram

The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. | passive/active

\_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world. | Interoprrability

Successive sets of data, where data and operations on it are independent of each other. | data flow

Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which kind of UML diagram can be expressed asynchronous message invocation? | sequence diagram

Select correct statement(s): Statement 1:Good software architectural designs are based on the recursive application of the"divide-and-conquer" methodology. Statement 2: Good software architectural designs are based on the recursive application of refinement of abstractions. | Statement 1 is correct

\_\_\_\_\_\_\_\_\_ is a modular(cohesive), deployable(portable), replaceable(plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

Select the disadvantages of direct manipulation | None of the others

Select incorrect statement | Agents in the repository architecture normally do not talk with each other directly, except though datastore.

Which of following software system cannot be designed using PAC? | Compiler

Select incorrect statement about module ininteraction-oriented software architecture | The dat are pository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data in itialization and system configuration actions.

How many different way are there to move data in P/F? | 3

Which is not correct way to use a component? | lookup in EJB

Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

Which is not component in interaction-oriented software architecture? | Data repository

Select correct statement | Concurrency is not supported in batch-sequential architecture

To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-of in this case? | Tradeoff between scalability and performance

Which tool can be used to describe an architecture style? | "4+1" view model

Select correct statement(s) | All of the others

Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. | Hierarchical

Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners & Event sources

Which are the different between component-oriented design and object-oriented design? | All of the others

Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

There are two categories of data-centered architecture:\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | blackboard & repository

The benefit of the broker architecture | All of the others

Which of the following is NOT the benefit of the MVC architecture? | Supports multiple in dependent agents

Which of the followings is NOT the benefit of hierarchical architecture? | concurrency

Which of the followings is NOT the benefit of repository architecture? | Loose coupling

Which of the following is true? | All of the others

Which is dynamic diagram? | Use-case diagram

Select correct statement | None of the others

Select incorrect statement | JDBC is XML based

The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. | Master-slave architecture

Typical OO languages include the following: | All of the others

Select incorrect statement | .Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select the benefits of nonbuffered event-based implicit invocation architecture | All of the others

Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.|Blackboard

Which of the following notations is not used to support the logical view? | Deployment diagram

Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

SDD

Which of the following is not considered as event-driven? | Callback

Polymorphism implies the following | the same operation might be have differently at run time

\_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures. | Client-server model

In Client/Server architecture | All of the others

Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

Select correct statement about inheritance | Class can inheritances more than one interface

Which of the following is true? | All of the others (web services are examples of service-oriendted architecture, the application domain of process control style includes real-time systems, web application are examples of client-server architecture)

Which of the following is typical design domain for the MVC architecture? | Web client site application

QN=1 (10168)Choose the correct statement. | Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world.

QN=2 (10157)Which of the following are considered as Business attributes? |Time to market, Lifetime, Cost

QN=3 (10153)Portability belongs to which of the following quality attributes group? | Implementation attributes

QN=4 (10156)Architecture Styles contribute to which of the following? | Software Quality Attributes

QN=5 (10171)Usability belongs to which of the following quality attributes group? | Runtime attributes

QN=6 (10162)Usability refers to \_\_\_\_ | The level of "satisfaction" from a human perspective in using the system.

QN=7 (10218)In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ | A software element

QN=8 (10200)In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

QN=9 (10237)According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?| Variable

QN=10 (10211)Based on connector's synchronization mode, the connectors could be classified into which categories below? |Blocking connector and non-blocking connector.

QN=11 (10212)At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

QN=12 (10273)Which is the best answer for the meaning of the description of the class diagram below when you read it? | A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor.

QN=13 (10264)Which is the following diagram called? | Sequence diagram (Note:From user)

QN=14 (10243)Which of the following notations is used to support the physical view? | None of the others

QN=15 (10248)State machine diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

QN=16 (10261)Which is the following diagram called? | Timing diagram (From "ad RM scheduling")

QN=17 (10302)Which of the following is NOT an Open-Close principle's implication? | Feel free to change software code.

QN=18 (10306)The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

QN=19 (10300)Which of the following is an Open-Close principle's implication? | Keep attributes private

QN=20 (10290)Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

QN=21 (10281)In UML 2.0, Which of the following is TRUE? | Sequence Diagram describes time sequence of messages passed between objects in timeline.

QN=22 (10335)When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

QN=23 (10360)Which of the following is the INCORRECT statement about active filter? | It lets connected pipes to push data in and pull data out.

QN=24 (10328)Which of the following statement is TRUE? | One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

QN=25 (10363)Which of the following is the INCORRECT statement about passive filter? | It works with a passive pipe which provides read/write mechanisms for pulling and pushing.

QN=26 (10357)Which of the following is a CORRECT statement? | Filters can run in separate threads of the same process.

QN=27 (10396)The following image is an example of which architecture style? | Repository architecture style and (?) is a Data Repository

QN=28 (10392)In the Repository architecture, Said that the client control the logic flow means what? | The software component agents control the computation, request and update data on repository actively.

QN=29 (10380)\_\_\_ are installed in the Blackboard component of the blackboard architecture | Facts

QN=30 (10400)Data store reliability and availability are limitations of which architecture style below? | Repository architecture

QN=31 (10374)Which of the following is the benefit of Blackboard Architecture? | Concurrency

QN=32 (10429)In DFD, the follow image is a representation of which flow? | Transaction flow

QN=33 (10409)Which of the following is NOT the limitation of layered architecture? | Incremental software development based on increasing levels of abstraction.

QN=34 (10437)With an application that has clean divisions between core services, critical services, user interface services…. Which architecture style will you apply? | Layered architecture

QN=35 (10441)A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank? | A virtual abstraction

QN=36 (10415)Which of the following is the limitation of virtual machine architecture? | Overhead due to the new layer

QN=37 (10450)The limitation of message-driven architecture over event-driven architecture is which of the following? | Capacity of message queue.

QN=38 (10475)Which architecture style supports scalability and reliability better? | Buffered message-based architecture (2)

QN=39 (10463)When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.Among the styles below, which is the architecture style you will choose to apply into your system architecture? | Buffered Message-based Architecture style

QN=40 (10449)Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

QN=41 (10490)Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents

QN=42 (10484)The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice? | 3 major partitions - Data module, Control module, Presentation Module

QN=43 (10528)When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose? | PAC architecture

QN=44 (10503)What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

QN=45 (10492)Which of the followings is a typical design domain of the MVC architecture? | Web server site application

QN=46 (10494)Which of the following are PAC architecture's benefits? | All of the others

QN=47 (10569)In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | Broker

QN=48 (10540)Which of the followings is a style of distributed architecture? | Service Oriented architecture

QN=49 (10562)Which of the following is the most important quality attribute of Broker architecture style? | Better decoupling between clients and servers

QN=50 (10533)Which of the followings is NOT the benefit of distributed architecture? | Testability

QN=51 (10541)The image below describes a distributed architecture style. Choose which the suitable style is? | SOA

QN=52 (10578)Which is the reason of the increase of overall system reliability when you apply component-based architecture? | The reliability of each individual component enhances the reliability of the whole system via reuse.

QN=53 (10570)Which of the following description is TRUE? | A component is stored in a binary format, executable and deployable.

QN=54 (10585)Which of the following is a benefit of component-based architecture? | Independency and flexible connectivity of components

QN=55 (10602)Which of the following attribute relates to time and space? | Efficiency

QN=56 (10600)SAAM is which of the following methods? | Software Architecture Analysis Method

QN=57 (10605)Which of the following attribute relates to user interfaces' learning ability? | Usability

QN=58 (10628)In User Interface design step, Separation factor consideration means what? | Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations.

QN=59 (10624) In User Interface design step, Intuitive factor consideration means what? | The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

QN=60 (10645) Design produces architectures that specify products and components in the form of which of the following? | An abstract-level design solution

Agents in the repository architecture normally do not talk with each other directly, except though the data

store | A True

An event can be either visible or invisible | A True

COBOL is widely used to implement batch sequential | B True

Component deployment is a good practice in a layered architecture | A True

Coupling in message-driven architecture is even looser than in event-driven architecture | A True

Facts are installed in the Blackboard component of the blackboard architecture | B True

FPT University's CMS site is an example of repository design | B True

Hierarchical architecture is a procedure-oriented design paradigm only | [B] False

Implicit notification is often used in blackboard architecture | [B] True

Java can be used to implement a pipe and filter design system | [B] True

Message-based architecture is appropriate for a compiler in an IDE design | [B] False

Multiple event targets can register with same event source | [B] True

Only directly adjacent layers can invoke each other's method in a layered architecture. | [A] False

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | [B] False

The control flow in batch sequential is implicit | [A] True

The control flow in pipe and filter is explicit | [B] True

The master-slave architecture is a specialized form of main-subroutine architecture | [A] True

The testing of synchronous architecture is more straightforward than asynchronous architecture | [A] True

The yellow page of web service is an example of repository design | [A] True

There are data sharing (shared data) among all subsystems in a data flow system | [B] False

Two modules in a data flow system can change their order without any constraints | [A] False

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | [B] A client's request or a response to client must go through potentially several layers.

Which is NOT the way to make the data flow in Pipe and Filter architecture? | [C] Leave data in a center repository

Which is the purpose of Main-Subroutine Architecture? | [C] To reuse the subroutines.

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | [D] Forward reasoning

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | [D] Blackboard Architecture

Which of the following architecture is suitable for the embedded system software design? | [C] Process-Control Architecture

Which of the following are not benefits of batch sequential? | [B] All of the others

Which of the following is a typical design domain of blackboard architecture? | [B] Al system

Which of the following are benefits of Non-buffered Event-based architecture? | [D] Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are not benefits of pipe and filter? | [D] Interactive

Which of the following is buffer-based software architecture? | [C] Publish-Subscribe Messaging (P&S)

Which of the following is one of the benefits of asynchronous architecture? | [B] Loose coupling of modules

Which of the following is the limitation of Repository Architecture Style? | [A] High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | [A] Overhead cost of moving data on network if data is distributed..

You will apply the batch sequential architecture when? | [A] Developing a system where intermediate file is a sequential access file.

Both Sequential and Parallel processing are supported by | [C] Pipe and Filter architecture

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | [A] 2 partitions

The following diagram is a description of which architecture style? | [D] Repository Architecture

The following image is an example of which architecture? | [B] Batch Sequence Architecture

Evaluating the scalability of architecture styles, which is the right order of scalability of distributed architecture styles? (">" is better) | Client-Server > Broker > Service-oriented

What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug

Which of the following statement is TRUE? | Three-tier is the same as MVC architecture

Which of the below description is a benefit of PAC architecture style? | Complete separation of presentation and abstraction

Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions

Which of the following is TRUE? | Hardware idependence does not imply software independence

Which of the statement you can describe about MVC architecture styles? | MVC is now a very popular archiecture style

Which of the most appropriate architecture style to develop a radar system like below? | PAC

The below image is a snapshot of which architecture styles following? | Event-based architecture

Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one

CORBA is a good implementation example of\_\_\_ | Broker Architecture

Which of the following is an architecture design evaluation methodology? | SAAM

Which of the following attribute related to time and space? | Efficiency

In Thin-Client type, the server includes which of the following processing | Data Storage Processing, Business Logic Processing

Which of the following is NOT a benefit of the MVC architecture? | Supports mutiple independence agents

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

The Architecture Decision Procedure includes following steps, Which is the correct order of these steps? | (2)Determine the required quality attributes in requirement analysis => (1)Quantity the quality attributes =>(3) Compute the weighted sum

Which is the statement you can describe about PAC architecture style? | PAC's Agents are loose coupling and high independent

which of the following is the main motivation of component-based architecture?|component security

the key point of the interaction oriented software architectures is\_\_\_Which is the best answer?|in the separation of user interactions from data abstraction and business data processing

the following image is an example of one of architecture style below. Which is the best choice?|Multi-tier architecture style

which of the following is not a benefit of component architecture|performance

which is an advantage of client-server architecture?|reusability of server components

which of the following is the advantage of broker architecture|changeability and extensibility

which of the following attribite related to error tolerance and availability?|reliability

Which of the following is TRUE about heterogeneous architecture?|If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Which is the reason when you apply component-based architecture, overall system reliability will be increased?|You could increase the reliability of each individual component in your own way

Which of the following attribute related to hardware independence and installability?|Portability

In SOA architecture, Interoperability means what?|Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

In Client-Server architecture style, there are follow types:|Thin-Client, Fat-Client

Which of the followings is a style of distributed architecture?|Service Oriented architecture

In MVC, said that it is easy to plug-in new or change interface views mean which of the following?|It allows updating the interface views with new technologies without overhang the rest of the system.

Which of the following is NOT the benefit of Multi-tier architecture style?|Load balancing

What of the following characteristic do MVC and PAC both have?|Support for developing interactive application

Which of the below description is a limitation of MVC architecture style?|Does not fit well agent-oriented applications such as interactive mobile and robotics applications

A component is NOT\_. Which is the best choice?|A whole system which could be executed independent

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher )|Component-based > Object-oriented > Functional-oriented > Service-based

Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

An event can be either visible or invisible | True

Both Sequential and Parallel processing are supported by | Pipe and Filter architecture

COBOL is widely used to implement batch sequential | True

Component deployment is a good practice in a layered architecture | True

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Facts are installed in the Blackboard component of the blackboard architecture | True

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Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

The control flow in batch sequential is implicit | True

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The master-slave architecture is a specialized form of main-subroutine architecture | True

The following diagram is a description of which architecture style?(---> control flow ) | Repository Architecture

The following image is an example of which architecture? | Batch Sequence Architecture

The testing of synchronous architecture is more straightforward than asynchronous architecture | True

The yellow page of web service is an example of repository design | True

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Which of the following is the limitation of Repository Architecture Style? | Overhead cost of moving data on network if data is distributed..

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1. Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecure styles? (“>” is better) | Client-Server > Broker > Service-oriented

2. What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug.

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8. Which of the following is TRUE? | Hardware independence does not imply software independence

9. Which is the statement you can describe about MVC architecture style? | MVC is now a very popular architecture style.

10. Which is the most appropriate architecture style to develop a radar system like below? | PAC

11. The below image is a snapshot of which architecture styles following? | Event-based architecture

12. Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one.

13. CORBA is a good implementation example of \_\_\_ | Broker Architecture

14. Which of the following is an architecure design evaluation methodology? | SAAM

15. Which of the following attribute related to time and space? | Efficiency

16. In Thin-Client type, the server includes which of the following processing. | Data Storage Processing, Business Logic Processing

17. Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents.

18. ATAM is which of the following methods? | Architecture Trade-off Analysis Method

19. The architectural Decision Procedure includes following steps:

(1): Quantify the quality attributes

(2): Determine the re required quality attributes in requirement analysis

(3): Compute the weighted sum

Which is the correct order of these steps? | 2 => 1 => 3

20. Which is the statement you can describe about PAC architecture syle? | PAC’s Agents are loose coupling and high independent.

21. Which of the following is the main motivation of Component-based architecture? | Component reusability

22. The key point of the interaction oriented software architectures is \_\_\_ Which is the best answer? | In the separation of user interactions from data abstraction and business data processing.

23. The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture style

24. Which of the following is NOT a benefit of Component architecture | Performance

25. Which is an advantage of Client- Server Architecture? | Reusability of server components.

26. Which of the following is the advantage of Broker architecture? | Changeability and extensibility

27. Which of the following attribute related to error tolerance and availability? | Reliability

28. Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architeture style, and each component can use a different one, this is an example of heterogeneous architecture

29. Which is the reason when you apply component-based architecture, overall reliability will be increased? | You could increase the reliability of each individual component in your own way.

30. Evaluating the abstraction of software development methodogy, Which is the right order? (“>” is higher) | Service-based > Component-based > Object-oriented > Functional-oriented

31. Which of the following attribute related to hardware independence and installability? | Portability

32. In SOA architecture, Interoperability means what? | Technically any client or any service can access other services redardless of their Plaform, Technology, Vendors, Language implementations

33. In Client-Server architecure style, ther are follow types | Thin-Client, Fat-Client

34. Which of the followings is a style of distributed architecture? | Service Oriented architecture

35. In MVC, said that it is easy to plug-in new or change interface views mean which of the following? | It allows updating the interface views with new technologies without overhang the rest of the system

36. Which of the following is NOT the benefit of Multi-tier architecture style? | Load balancing

37. When you are request to maker a system which can be used be users who work on different sites. It’s required that the system security attribute is high because of its working domain requirement. There are about 100.000 to 500.000 users using the system at the same time. Which architecture will you choose to apply for the system development? | Component-based architecture style

38. What of the following characteristic do MVC and PAC both have? | Support fot developing interactive application

39. Which of the below description is a limitation of MVC architecture sytle? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

40. A component is NOT \_\_\_. Which is the best choice? | A whole system which could be executed independent.

1. For what project resource allocation, the software element are \_\_\_\_ | Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

2. Object-oriented design is a design methodology | true

3. Which is the following diagram called? | state machine diagram

4. Architecture styles contribute to software quality attributes | true

5. Which of the following notations is used to support the physical view? | none of the others

6. Which of the following are considered as Runtime attributes | availability, security, performance, usability

7. In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow “Human:Player”, which of the following is correct expression? | an object named “Human” whose class is “Player”

8. Time to market belongs to which of the following quality attributes group? | Business atttributes

9. In a software architecture, a process, object, service or an instance of software component is \_\_\_ | A software element

10. UML diagrams are \_\_\_ which are used for system analysis and design | Tools

11. Which of the following is NOT TRUE about Architectural design step? | we will specify the internal details of each component

12. Which of the following notations is used to support the process view? | Activity diagram

13. Which of the design below is better? | b (hình nhìn don gi?n hon)

14. Which of the following is a principle of Object Oriented methodology? | Polymorphism

15. Which of the following are considered as Implementation attributes? | Interoperability, Maintainability, Portability, Flexibility

16. Which of the following diagram is a Structural diagram | class diagram

17. Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

18. Which of the following is the correct order of Object Oriented design steps? CRC Card Approach -> Construct Interaction Diagram->Build State Chart->Class Design

19. Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle | true

20. Which of the following is Open-Close principle? | open to extension, close to modification

21. Which of the following is NOT the role of architects? | determine market trends or needs evaluation

22. At software deployment time, the software element are \_\_ | the executable version of the project modules and files

23. The purpose of the software analysis phase is to produce a software requirement specification | true //

24. Software Architecture Design is based on the software requirement | true

25. The CRC card method is used to identify the responsibilities of each class | true

26. Which of the following is not an Open-Close principle’s implication? | Fell free to change software code

27. Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem. | various design strategies

28. Abstraction via inheritance is one effective way to achieve the open-close principle | true

29. Architect design is about choosing the right single architecture style for a project | false

30. Software quality attributes must satisfy functional requirements | false

31. What is an architecture design space? | design alternatives that can support functional and non-functional requirement specifications.

32. Which is NOT a structure which can be described in a software architecture? | operation structure

33. Which of the following structures describes the dynamic properties of software architecture? | software runtime structure

34. Based on connector’s information carrier, the connectors in software architecture might be classification into \_\_ | variable, environment resource, method, message

35. At software development time, the software element are \_\_? | Source code modules or files which have been assigned functional and non-functional attributes.

36. Which of the following is NOT TRUE about Detailed design step? | We will describe user accessible components only in this step.

37. Polymorphism implies the following: | All of others

38. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc. | logical view

39. Batch-Sequence is one of the architecture styles | true

40. In UML 2.0, which of the following is true? | sequence diagram describes time sequence of messages pass between objects in timeline.

1. Activity diagrams are used to support…… | The process view

2. With a good software design, which is benefit we will get? | It leads the risk in software production more serious

3. Which of the following is advantage of broker architecture? | Changeability and extensibility

4. The outcome of Object Oriented Analysis stage are… | Requirement Specification, Initial logic structure of the system

5. Which of the following if limitation of Non-buffered Event-Based architecture? | Reliability and overhead of indirect invocations

6. Package diagram is grouped in which of following UML diagram category? | Structure diagram

7. The Architectural Decision Procedure includes following steps |

1. Determine the required quality attributes in requirement analysis

2. Quantify the quality attributes

3. Compute the weighted sum

8. Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

9. Which of the following is TRUE for implementing the separation of the user interface from the logic of software system? | all

10. The constituent parts of the architecture of a system are which of the following? | Its component, connectors, and the rules governing their interactions.

11. Which diagram equivalent to a sequence diagram? | Collaboration diagram

12. Which of the following is NOT benefit of distributed architecture? | Supports multiple independent argents

13. Which of the following architecture is suitable for the embedded system software design? | Pipe and filter architecture

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development? | PAC architecture

15. Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message? | Based on connector’s information carrier

16. ATAM is which of the following methods? | Architecture Trace-off Analysis Method

17. Repository architecture and Backboard architecture is categorized into which of the following architecture style? | Data-centered architecture style

18. The below image is a snapshot of which architecture styles following? | MVC architecture

19. Which of the following is TRUE? | Time efficiency is usually the most important quality attribute

20. Which of the following is one limitation of Client/Server architecture? | Server availability and reliability

21. Which of the following is one of distributed architecture? | Service-Oriented architecture

22. Which of the following is limitation of message-driven architecture? | Capacity limit of message queue

23. When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

24. Which of the following attributes which could be observable at runtime? | Availability, Security, Performance

25. Which of the following is one of advantages of Component-Based architecture? | Productivity for the software development and future software development.

26. Which of the following statement is TRUE? | The usability of a user interface is enhanced by consistency and integration.

27. Which of the following is a limitation of Layered architecture? | Lower runtime performance

28. In user interface evaluation step, we should focus on what? | The usability of the interface

30. Which of the following is a limitation of component architecture? | Adaption of components

31. The acronym SAPCO is used for which of following purpose? | Describing the Easy to use attribute of user interfaces

32. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to local method invocation.

33. Polymorphism principles mean that…. | An object can have different appearance/behaviors under difference circumstances

35. Compared with SOA, the advantage of SBA is which of the following? | Allows stateful service

36. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

37. Which of the following is NOT a buffer- based software architecture | Peer-to-peer connection

39. Which of the following is an Open-Close principle’s implication? | Keep attributes private

1. Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

2. Event-based architecture is difficult to test and debug | True (correct)

3. Main- subroutine architecture can also be applied in any object-oriented software design | False

4. Component deployment is a good practice in a layered architecture. | True (correct)

5. In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

6. Client-server architecture is general is better availability than the multi-tier model | False (correct)

7. The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

8. Sequential flow control can be predetermined in batch sequential. | True (correct)

9. Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

10. RPG is widely used to implement batch sequential | True….

11. Event-based architecture style is a buffered architecture | False (correct)

12. Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False (correct)

13. Java can be used to implement a pipe and filter design system. | True (correct)

14. The control flow in batch sequential is implicit. | True (correct)

15. The following image is an example of one of architecture style below. Which is the best choice? | Process-Control architecture

16. In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

17. Implicit notification is often used in blackboard architecture. | True (correct)

18. The control flow in pipe and filter is explicit. | True (correct)

20. The master-slave architecture is a specialized form of main-subroutine architecture | True

21. In Fat-client type, the server includes which of the following processing | Presentation processing, Business Logic Processing

22. Repository architecture design could NOT be object-oriented design | True

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True (correct).

24. which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

25, Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

26, The testing of synchronous architecture is more straightforward than asynchronous architecture. | True

27, Two modules in a data flow system can change their order without any constrains. | False

28, Multiple event targets can register with same event source. | True

29, Hierarchical architecture is a procedure-oriented design paradigm only. | False

30. Sequential flow control can be predetermined in pipe and filter. |True

1. The constituent elements of software architecture are software elements and their connections | False

2. Software architecture design involves many software design methodologies and architecture styles | True

3. The purpose of software design phase is to produce a software requirement specification | False

4. Object-oriented design is a design methodology | True

5. Pipe and filter is one of the architecture styles | True

6. Software architecture is a static software structure description | False

7. Software quality attributes must satify functional requirement | False

8. Architecture styles contribute to software quality attributes | True

9. Software architecture = software architecture styles | False

10. Software architecture design is based on the SRS | True

12. Which of following structures describe the dynamic properties of software architecture? | Software runtime structure.

13. Different architectures structures have different element and connector types | True

14. Element and connector attributes are derived from the project | True

15. Architecture design is about choosing the right single architecture style for a project | False

16. Divide and conquer is not a suitable methodology for architecture designs | False

17. Deloyment decisions should be reflected in early architecture | False

18. Which of the following notations is used to support the logical view? | All of the above

19. Which of the following notations is used to support the physical view? | None of the above

20. Activity diagrams are used to support the process view. True

21. Deployment diagrams are used to support the physical view | True

22. Component diagrams are used to support the development view | True

23. The software submodels and their interfaces are described in the logical view | True

24. Concurrency control activity is part of the processview | True

25. System and network configuration decisions are part of the physical view | True

26. Software architecture is concerned only with functional requirements | False

27. Prototyping can be used to support UI design | True

28. ADL is a programming language | False

29. ADL can produce tagret code | True

30. ADL is used only for software architecture specification | False

31. UML diagrams are used for system analysis and design | True

32. Usecase diagrams are generated in early stages of the SDLC, where areas deployment diagrams are generated in the later stages of the SDLC | True

33. Composite structure diagrams are based on object diagrams | True

34. Component diagrams are based on object diagrams | True

35. A UML diagram must provide a complete view of the entire software system | True

36. A component is a class or an object | False

37. Asynchronous message invocation can be expressed in sequence diagram | True

38. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

39. Conditional branching can be represented in sequence diagrams | True

40. An interaction overview diagram is based on all low-level interaction diagrams | True

41. Which of the following are benefits of OO design? | All of the above.

42. Which of the following are features of OO methodology? | Inheritance

43. C is a popular OO programming language | False

44. The set of classes in a design is nailed down when the analysis class diagram is finished | False

45. The CRC card method is used to identify the responsibilities of each class | True

46. Sequence diagrams do not describe loops in a message exchange process | False

47. A class is said to be cohesive if it supports as many associated responsibilities as possible | False

48. Abstraction via inheritance is one effective way to achieve the open-closed principle | True

49. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

50. To conform to the open-closed principle the use of global variables should be minimized | True

51. Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

52. Polymorphism implies the following: | All of the others

53. Which of the following are considered as Runtime attribute? | Availability, Security, Perfomance, Usability

54. Which of the following is not an Open-Closed principle’s implication? | Feel free to change software code

55. What is a class involved in accomplishing the responsibility of a class called in CRC modeling? | Collaborator

56. Which of the following diagram is NOT an structural diagram | Sequence diagram

57. In UML 2.0 Which of the following is true? | Sequence Diagram both concurencies and loops can be specified

58. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression? | An object named “John” whose class is “Doctor”

59. Which of the following is Open-Closed principle? | Open to extension, Close to modification

60. Which is not a structure which can be described in a software architecture? | Operation structure

61. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc | Logicalview

64. COBOL is widely used to implement batch sequential? | True

65. Two modules in a data flow system can change their order without any constraints | False

66. Java can be used to implement a pipe and filter design system | True

67. The control flow in pipe and filter is explicit | True

68. The control flow in batch sequence is implicit | True

69. There are data sharing (shares data) among all subsystems in a data flow systems | False

70. Sequential flow control can be predetermined in pipe and filter | True

71. Sequential flow control can be predetermined in batch sequence | True

I.

- The constituent elements of software architecture are software elements and their connections. | False

- Software architecture design involves many software design methodologies and architecture styles. | True

- The purpose of the software design phase is to produce a software requirement specification. | False

- Object-oriented design is a design methodology. | True

- Pipe-and-filter is one of the architecture styles. | True

- Software architecture is a static software structure description. | False

- Software quality attributes must satisfy functional requirements. | False

- Architecture styles contribute to software quality attributes. | True

- Software architecture = software architecture styles. | False

- Software architecture design is based on the software requirement specification. | True

3. Different architecture structures have different element and connector types | True

4. Element and connector attributes are derived from the project requirements | True

5. Architecture design is about choosing the right single architecture style for a project | False

6. Divide-and-conquer is not a suitable methodology for architecture design | False

7. Deployment decisions should be reflected in early architecture designs | False

III. C3

1. Which of the following notations is used to support the logical view? | All

2. Which of the following notations is used to support the physical views? | None

3. Activity diagrams are used to support the process view | True

4. Deployment diagrams are used to support the physical view | True

5. Component diagrams are used to support the development view | True

6. The software submodules and their interfaces are described in the logical view | True

7. Concurrency control activity is part of the process view | True

8. System and network configuration decisions are part of the physical view | True

9. Software architecture is concerned only with functional requirements|False

10. Prototyping can be used to support UI design | True

11. ADL is a programming language| False

12. ADL can produce target code | True

13. ADL is used only for software architecture specification | False

14. UML diagrams are used for system analysis and design | True

15. Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC | True

16. Composite structure diagrams are based on object diagrams | True

17. Component diagrams are based on object diagrams | True

18. A UML diagram must provide a complete view of the entire software system | True

19. A component is a class or an object | False

20. Asynchronous message invocation can be expressed in sequence diagrams | True

21. Conditional branching can be represented in sequence diagram | True

22. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

23. An interaction overview diagram is based on all low-level interaction diagrams | True

IV. C4

1. Which of the following are benefits of OO design? | All

3. C is popular OO programming language | False

4. The set of classes in a design is nailed down when the analysis class diagram is finished | False

5. The CRC card method is used to identify the responsibilities of each class | True

6. Sequence diagrams do not describe loops in a message exchange process | False

7. A class is said to be cohesive if it supports as many associated responsibilities as possible | False

8. Abstraction via inheritance is one effective way to achieve the open-closed principle | True

9. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

10. To conform to the open-closed principle the use of global variables should be minimized | True

V. C5

1. Which of the following are not benefits of pipe and filter? | Interactive

2. Which of the followings are not benefits of batch sequential? | Interactive

3. COBOL is widely used to implement batch sequential | True

4. Two modules in a data flow system can change their order without any constraints | False

5. Java can be used to implement a pipe and filter design system | True

6. The control flow in pipe and filter is explicit | False

7. The control flow in batch sequential is implicit | False

8. There are data sharing (shared data) among all subsystems in a data flow system | False

9. Sequential flow control can be predetermined in pipe and filter | True

10. Sequential flow control can be predetermined in batch sequential | rue

VI. C6

1. Which of the following is not a benefit of repository architecture? | Concurrency

2. Which of the following is a typical design domain of blackboard architecture? | AI system

4. Implicit notification is often used in blackboard architecture | True

5. Repository architecture design must also be object-oriented design | False

6. Agents in the repository architecture normally do not talk with each other directly except though the data store | True

7. Loose coupling is used between repository agents | True

8. There is tight dependency of agents on the data store in the repository architecture | True

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

10. The facts or hypotheses are stored in the knowledge source component of a blackboard system | False

VII. C7

1. Which of the following is not a benefit of hierarchical architecture? | Concurrency

2. Which of the following is a disadvantage of hierarchical architecture? | Overhead

3. Web service is an example of hierarchy architecture design | True

4. Hierarchical architecture is a procedure-oriented design paradigm only | False

5. Hierarchical architecture can also be applied in any object-oriented software design | True

6. Only directly adjacent layers can invoke each other’s methods in a layered architecture | False

7. Component deployment is a good practice in a layered architecture | True

8. There is data sharing between all layers in a layered architecture | False

9. The callback method is typically used in a main-subroutine architecture | False

10. The master-slave architecture is a specialized form of main-subroutine architecture | True

11. Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

12. Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

13. Client-server architecture in general is more scalable than the multi-tier model. | False.

14. CORBA is an example of the broker architecture. | True.

15. Web service is an example of SOA architecture. | True.

VIII. C8

1. Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

2. Which of the followings is not typical design domain of the asynchronous architecture | Hierarchical structure

3. The testing of synchronous architecture is more straightforward than asynchronous architecture | True

4. Implicit notification is often used in MVC architecture | True

5. Multiple event targets can register with same event source | True

6. An event can be either visible or invisible | True

7. Coupling in message-driven architecture is even looser than in event-driven architecture | True

8. A registered event target must be ready to handle the event when the event is fired off | True

9. A message receiver is not required to be ready when the message arrives | True

10. The notification of events or messages is different from local or remote method invocation | True

11. Multiple consumers can consume a message on a message queue | True

12. An event can be declared on the fly | True

13. Message-based architecture is appropriate for a compiler in an IDE design | False

IX. C9

1. Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

2. Which of the following is a typical design domain for the MVC architecture? | Web server site application

3. Traffic control agents in a city traffic management system may be designed using PAC | True

4. Implicit notification is often used in the MVC architecture | True

5. The data in the Model component of the MVC architecture is active | True

6. The data in the abstraction component of a PAC agent is passive | True

7. PAC agents are loosely coupled | True

8. The abstraction and presentation components in a PAC agent do not talk to each other directly | True

9. The “Look and feel” feature is well supported in the MVC | True

10. The PAC architecture is a hierarchically structured software architecture | True

X. C10

1. Which of the following is not one of the benefits of distributed architecture?

a. Supports multiple independent agents

b. Scalability

c. Supports multiple views

d. Loose-coupling of modules

2. Which of the following is not a typical style of distributed architecture?

a. Client-server

b. Hierarchical structure

c. Broker

d. SOA

3. Client-server architecture in general is more scalable than the multi-tier model False

4. CORBA is an example of the broker architecture True

5. Web service is an example of SOA architecture. True

XI. C11

1. which of the following is not a benefit of component architecture? | Concurrency

2. Which of the following is not a benefit of component architecture? | Performance

3. CCM is a target technology for component technology | True

4. Each component may have its provided ports and required ports from other components | True

5. Each component must have its provided ports and required ports | False

6. The provided interface ports may be in synchronous or asynchronous modes | True

7. A component architecture can be derived from use case analysis and business concept diagrams | True

8. Core type classes can be recognized as a new component | True

9. A core type component does not depend on any other classes | True

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components | True

XII. C12

1. Which of the following is used to evaluate architecture designs? | ALL

2. Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

3. Modifiability and expandability are essentially the same quality attribute | False

4. SAAM relies on use cases to test an architecture design | False

5. There is always an architecture design that can meet all requirements | False

6. Service-oriented architecture is stateless, while component-based architecture is not | True

7. Batch sequential architecture is generally more time efficient than pipe and filter | False

8. It is beneficial to integrate architecture design with the process of requirements analysis | True

9. Event-based architecture is a good candidate for interactive systems with graphic user interface | True

10. Blackboard architecture is difficult to debug | True

XIII. C13

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs | False

2. Chapter 3 of this book, on “models for software architecture”, has nothing to do with user interfaces described in this chapter. | False

3. User interface refers to static components and their layout, not dynamically displayed information. | False

4. The MVC model suggests the separation of the user interface from the logic of the software system. | True

5. Which of the following is true for implementing the separation of the user interface from the logic of the software system? | All

6. The look and feel of a user interface can be defined by using engineering rules | False

7. A customizable user interface is not a good style since it will confuse users. | False

8. The usability of a user interface is enhanced by consistency and integration | True

9. The acronym SAPCO describes | The satisfactory principles of user interfaces

10. The Java programming language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces | True

XIV. C14

1. The constituent parts of the architecture of a system are” | Its components, connectors, and the rules governing their interactions

2. Domain analysis identifies the various common features in a domain and their differences | True

3. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain | False

4. Product line processes are a way to institutionalize systematic reuse | False

5. Design-for-commonality anticipates variation without compromising commonality | False

6. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goal. | True

7. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset-supported development approach | True

8. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False

9. Reuse is not and end in itself but a means to an end | True

10. Reusable assets are limited to code components | False

11. Software components do not need adaptation | False

12. Horizontal reuse refers to the use of an asset across several distinct domains or different product lines | True

I.

1. Which of the following is true about buffered message system? | Buffered message system is easy to debug

2. The below image is a snapshot of which architecture styles following? | Repository architecture

3. When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC Architecture

4. Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

5. Which of the following is an Open-Close principle’s implication? | Separate interface and implementation

6. Design produces architecture that specify products and components in the form of Which of the following? | A detail-level design solution

7. Which of following is one limitation of Client/Server architecture? | Server availability and reliability

8. Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

9. Based on connector’s information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_ | Variable, Environment resource, Method, Message

10. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

11. Which of the following diagram called? | Sequence diagram

12. Polymorphism principles means that\_\_\_\_\_\_\_ | An object can have different appearance/behaviors under different circumstances.

13. Which of the following is NOT the benefit of distributed architecture? | Testability

14. Which of the following is a limitation of Non-Buffered Event-based architecture? | Reliability and overhead ò indirect invocations

15. Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

16. When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level.

17. The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions.

19. Which of the following is a limitation of Layered architecture? | Lower runtime performance

20. Which of the following is a limitation of component architecture? | Adaption of components

21. Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

22. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

25. Which of the following is one of distributed architecture? | Service Oriented architecture

26. User Interface Evaluation does NOT focus on which of following features? | Only the tailor-able of the user interface

27. Which of the following is a PAC architecture benefit? | All of the others

28. State machine diagram is grouped in which of following UML diagram category? | Behavioral Diagrams

29. Sequence diagram are used to support\_\_\_\_ | The logical view

30. Which of the following is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

31. Which of the following is TRUE? | Hardware independence does not imply software independence

32. Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice? | (1): Event (source); (2): Event Listener

33. Repository architecture and Blackboard architecture is categorized into which of following architecture style? | Data-Centered architecture style

34. The following diagram is a description of which architecture style? (---> control flow) | Blackboard architecture

38. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline? | Time Sequence Diagram

39. In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

40. Which of the following is the advantage of broker architecture? | Changeability and extensibility

41. Portability refers to \_\_\_\_ | The level of independence of the system on software and hardware platforms.

42. The acronym SAPCO is used for which of following purpose? | Describing the East to use attribute of user interface

43. Which is the benefit of MVC | Multiple views synchronized with same data model

44. Which of the following statement is TRUE? | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

45. Which diagram is equivalent to a sequence diagram? | Collaboration diagram

46. Which of the following is one of advantages of Component-based architecture? | Productivity for the software development and future software development

47. With a good software design. Which is the benefit we will get? | It helps to coordinate development teams to work together orderly.

49. The outcome of Object Oriented Analysis are \_\_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

25. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style? | Client-side proxy

26. The CRC card method in used to identify the responsiblities of each class | True

27. Which of the following are considered as implementation attributes? | Interoperability, maintainability, prortability, fexibility

28. SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

29. In user interface design step. User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

Which of the following is true about buffered message system? | All of the others

The below image is a snapshot of which architecture styles followuing? | Repository architecture

When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC architecture

which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

which of the following is an Open-Close principle's implication? | Separate interface and implementation

Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

which of the following is one limitation of Client/Server Architecture? | Server availablity and reliability

which of the following is the limitation of Reporsitory Architecture Style? | Data store reliability and availability

Based on connector's information carrier, the connectors in software architecture might be classification into | Variable, Enviroment resource, Method, Message

which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation

which of the following diagram called? | Sequence diagram (User, HomListPage, BookingPage)

Polymorphism principles means that \_\_ | an object can have different appearance/behaviors under different circumstances

which of the followings is NOT the benefit of distributed architecture? | Testability

which of the following is a limitation of Non-buffered Event-based architecture? | Reliability and overhead of indirect invocations

which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level

The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions

The Architectural Decision Procedure includes following steps: (1) Quantify the quality attributes (2): Determine the required quality attributes in requirement analysis (3): Compute the weighed sum. Which is the correct order of these steps? | 2=>1=>3

which of the following is a limitation of Layered architecture? | Lower runtime performance

which of the following is a limitation of component architecture? | Adaption of components

which of the following is the limitation of message-driven architecture? | Capacity limit of message queue

which of the following is NOT an architecture sytle in hierarchical architecture? | Client-Server architecture

which of the following statement is TRUE? | THe usability of a user interface is enhanced by consistency and integration

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

which of the followings is one of distributed architecture? | Service oriented architecture

User Interface Evaluation does NOT focus on which of the following features? | Only the tailor-able of the user interface

which of the following is a PAC architecture benefit? | All of the others

State machine diagram is grouped in which of following UML diagram category? | Bahavioral diagrams

Sequence diagrams are used to support \_\_ | The logical view

which of the followings is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

Which of the following is TRUE? | Hardware independence does not imply software independence

Below diafram is class diagram of the Event-based architecture style. which of the following is the best choice? | (1): Event; (2): Event Listener

Repository architecture and Blackboard architecture is categorized into which of the following architecture style? | Data-Centered architecture sytle

The following diagram is a description of which architecture style? (--> control flow) | Master-Slave architecture

which of the following is NOT a buffer-based software architecture | Peer-to-Peer Connection

(1) is better because of which following? | Easy expansion

Compared with Serveice Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following? | Allows stateful service

In UML 2.0, which diagram describes time sequence of message passed between objects in timeline? | Sequence diagram

In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

which of the following is the advantage of broker architecture? | Changeability and extensibility

Portability refers to \_\_ | The level of independence of the system on software and hardware platforms

The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

Which is the benefit of MVC? | Multiple views synchronized with same data model

which of the following statement is TRUE? | One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

Which diagram is equivalent to a sequence diagram? | Collaboration diagram

which of the following is one of advantages of Component-based architecture? | Productivity fot the software development and future software development

With a good software design, Which is the benefit we will get? | It helps to coordinate development teams to work together orderly

which of the following is TRUE fot implementing the separation of the user interface from the logic of software system? | The same logic can be accessed by different kinds of user interfaces

The outcome of Object Oriented Analysis stage are \_\_ | Requirement Specification, Initial logic structure of the system

The following image is an example of (Database, Extractor, Sorter, Splitter...) | Pipe-and-Filter architecture

Which of the following is a typical design domain of the MVC architecture? | Web server site application

Interoperability refers to \_\_ | The universal accessbility and the ability to exchange data with internal components and the outside world

The following diagram is a description of which architecture style? (xanh, tim, do) | MVC architecture

Which is the incorrect guide for mapping runtime elements? | If an element is re-entrant it can not be implemented by a thread or a process

Choose the incorrect statement | Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

Software Design Description includes \_ | The software architecture and the detailed design of the system.

Choose the incorrect statement | Inheritance relation is another name of composition relation

Which of the followings is a style of distributed architecture? | Master-Slave architecture

Which of the following statements is TRUE? | One of benefits of Pipe and Filter architecture is Concurrency

Which of the following statement is TRUE? | Three-tier is a variant of Client-Server architecture

Objected-Oriented principles includes \_ | Inheritance, Encapsulation, Polymorphism

Which of the followings are categorized into Hierarchical architecture styles? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

In UML, a composition relationship represented \_\_ | Using a solid diamond arrowhead

Choose the correct statement | Time to market attribute refers to the time it takes from requirement analysis to the date product is released

Which of the following is the benefit of layered architecture? | Incremental software development based on increasing levels of abstraction

Which of the following is a benefit of asynchronous architecture? | Loose coupling of modules

Choose the correct statement | Class diagram shows how classes are statically related, but not how class dynamically interact with each other.

Which of the following is NOT a step in Object oriented design process? | Design of a UML Use-case diagram

The below image is a snapshot of which architecture styles following? (4 hcn cau truc giong nhau, ) | PAC architecture

Rule-based knowledge is installed in the \_\_ component of the blackboard architecture | Control

In an architecture styles, which of the following is the components defining how elements can be integrated to form the system | Constraints

The below image is a snapshot of which architecture style belowing? (View, A View 1, A View 2, ..) | MVC architecture

‘A’ character in “SAPCO” is which of the following? | Aesthetic

Which is the following diagram called? (customer, shipping, payment) | Package Diagram

Which of the followings is a style of distributed architecture? | Multi-tier architecture

Choose the correct statement | Runtime connector in software runtime structure inherit attributes from source code structure without any extension

In an architecture styles, which of the following is the components that perform functions required by a system? | Elements

What is called in CRC modeling a class that is involved in accomplishing the reponsibility of a class? | Collaborator

Choose the correct statement | Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

Which of the following is Open-Close principle in Object-Oriented Paradigm? | Open to extension, Close to modification

Choose the correct Software Architecture Design guideline | Think of what to do before thinking of how to do it

Which is the following diagram called? (proposed) | State machine diagram

The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

1. Activity diagrams are used to support | The process view

2. With a good software design, which is benefit we will get | b. It helps to coordinate development teams to work together orderly

3. Which of the following is advantage of broker architecture| a. Changeability and extensibility

4. The outcomes of Object Oriented Analysis stage are| Requirement Specification, Initial logic structure of the system

5. Which of the following if limitation of Non-buffered Event-Based architecture| b. Reliability and overhead of indirect invocations

6. Package diagram is grouped in which of following UML diagram category| a. Structure diagram

7. The Architectural Decision Procedure includes following steps| 2-1-3

8. Design produces architectures that specify products and components in the form of which of the following| c. A detail-level design solution

9. Which of the following is TRUE for implementing the separation of the user interface from the logic of software system| b. The same logic can be accessed by different kinds of user interfaces

10. The constituent parts of the architecture of a system are which of the following| a. Its component, connectors, and the rules governing their interactions

11. Which diagram equivalent to a sequence diagram| d. Collaboration diagram

12. Which of the following is NOT benefit of distributed architecture| c. Testability

13. Which of the following architecture is suitable for the embedded system software design| b. Process-Control Architecture

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development| b. PAC architecture

15. Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message| a. Based on connector’s information carrier

16. ATAM is which of the following methods| a. Architecture Trace-off Analysis Method

17. Repository architecture and Backboard architecture is categorized into which of the following architecture style| a. Data-centered architecture style

18. Which of the following is TRUE?| c. Hardware independence does not imply software independence

19. Which of the following is one limitation of Client/Server architecture| c. Server availability and reliability

20. Which of the following is limitation of message-driven architecture| a. Capacity limit of message queue

21. When will you apply the Batch Sequence architecture| a. Developing a system where each sub-system reads related input files and writes output files.

22. Which of the following attributes which could be observable at runtime| a. Availability, Security, Performance

23. Which of the following is one of advantages of Component-Based architecture| c. Productivity for the software development and future software development

24. The usability of a user interface is enhanced by consistency and integration| a. The usability of a user interface is enhanced by consistency and integration

25. Which of the following is a limitation of Layered architecture| a. Lower runtime performance

26. User interface Evaluation does NOT focus on which of following features| a. Only the tailor –able of the user interface

27. Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute| c. Productivity

28. Which of the following is a limitation of component architecture| a. Adaption of components

29. The acronym SAPCO is used for which of following purpose| b. Describing the Satisfactory principles of user interface

30. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design| a. If the two elements are mapped to a single process, the connector could be mapped to local method invocation

31. Polymorphism principles mean that….| An object can have different appearance/behaviors under difference circumstances

32. Availability refers to…| a system’s capability to be available 24/7

33. Which of the following is NOT an architecture style in hierarchical architecture| a. Client-Server architecture

34. Which of the following is the limitation of Repository Architecture Style?| c. Data store reliability availability is a very important issue

35. a. High dependency between data structure of data store and its agency| a. High dependency between data structure of data store and its agency

36. Which of the following is NOT a buffer- based software architecture| a. Peer-to-peer connection

37. Which of the following is a buffer- based software architecture| b. Publish-Subscribe Messaging(P&S)

38. In UML 2.0, which diagram derived from use case scenarios| c. Use-case diagram

39. Which of the following is an Open-Close principle’s implication| c. Keep attributes private

40. Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing

41. In Client-Server architecture style, there are follow types| B- Thin-client, Fat-client

42. In Thin-client type, the server includes which of the following processing | C- Data storage processing, Business Logic Processing

43. In Fat-client type, the server includes which of the following processing| A- Presentation processing, Business Logic Processing

44. Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| Blackboard

45. Which of following structures describe the static properties of software architecture| a. Software code structure.

46. Which of following structures describe the dynamic properties of software architecture| b. Software runtime structure

47. Which of the following notations is used to support the physical view| d. None of the above

48. Which of the following are benefits of OO design| e. All of the above.

49. Which of the following are features of OO methodology| c. Inheritance

50. Which are the categories of operations that a class can provide| b. Constructor, Destructor, Accessor, Mutator

51. Polymorphism implies the following: < knowledge of OOP, need review>| d. All of the others

52. Which of the following are considered as Runtime attribute| d. Availability, Security, Performance, Usability

53. Which of the following is not an Open-Closed principle’s implication| a. Feel free to change software code

54. What is a class involved in accomplishing the responsibility of a class called in CRC modeling| c. Collaborator

55. Which of the following diagram is NOT an structural diagram| d. Sequence diagram

56. In UML 2.0 Which of the following is true| b. Sequence Diagram both concurrencies and loops can be specified

57. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression| c. An object named “John” whose class is “Doctor”

58. Which of the following is Open-Closed principle| d. Open to extension, Close to modification

59. Which is not a structure which can be described in a software architecture| a. Dynamic structure

60. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios| d. Logical view

61. Which of the following are not benefits of pipe and filter| b. Interactive

62. Which of the following are not benefits of batch sequential| f. All of the above

The below image is a snapshot of which architecture styles following| d. Event-based architecture

64. The follow image is an example of| d. Repository architecture

65. Which of the following is true about buffered message system| d. All of the others

66. The below image is a snapshot of which architecture styles following| b. Repository architecture

67. Which of the following architecture is suitable for the embedded system software design| c. Process-Control Architecture

68. Which of the following is an Open-Close principle’s implication| b. Separate interface and implementation

69. Based on connector’s information carrier, the connectors in software architecture might be classification into | b. Variable, Environment resource, Method, Message

70. Which of the following diagram called| c. Sequence diagram

71. Polymorphism principles means that| a. An object can have different appearance/behaviors under different circumstances.

72. Which of the following are considered as Business attributes| d. Time to market, Lifetime, Cost

73. When will you apply the Process-Control architecture| a. Developing a system which needs to maintain an output data at a stable level

74. The Architectural Decision Procedure includes following steps| c. 2 => 1 => 3

75. ATAM is which of the following methods| c. Architecture Trade-off Analysis Method

76. Which of the following is one of distributed architecture| b. Service Oriented architecture

77. Which of the following is a PAC architecture benefit| d. All of the others

78. State machine diagram is grouped in which of following UML diagram category| a. Behavioral Diagrams

79. Sequence diagram are used to support| a. The logical view

80. Which of the following is a typical style of Hierarchical architecture| d. Hierarchical structure, Layered, Master-Slave, Virtual Machine

81. The following diagram is a description of which architecture style| a. Blackboard architecture

82. 1) is better because of which following| c. Easy expansion

83. Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following| b. Allows stateful service

84. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline| e. Sequence Diagram

85. In Non-buffered Event-based architecture, how many partitions a system could be broken into| c. 2 partitions

86. Portability refers to | c. The level of independence of the system on software and hardware platforms

87. Which is the benefit of MVC| a. Multiple views synchronized with same data model

c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces | c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

89. Which diagram is equivalent to a sequence diagram?| c. State machine diagram

90. Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system| d. The same logic can be accessed by different kinds of user interfaces.

94. Which of the followings are not benefits of batch sequential| f. All

95. Which of the following is not a benefit of repository architecture| c. Concurrency

96. Which of the following is a typical design domain of blackboard architecture| a. AI system

97. Which of the following is not a benefit of hierarchical architecture| b. Interactive

98. Which of the following is a disadvantage of hierarchical architecture| c. Incremental

99. Which of the following is one of the benefits of asynchronous architecture| d. Loose coupling of modules

100. Which of the followings is not typical design domain of the asynchronous architecture| c. Web server site application

101. Which of the following is not a benefit of the MVC architecture| a. Supports multiple independent agents

102. Which of the following is a typical design domain for the MVC architecture| c. Web server site application

103. Which of the following is not one of the benefits of distributed architecture| c. Supports multiple views

104. Which of the following is not a typical style of distributed architecture| b. Hierarchical structure

106. Which of the following is not a benefit of component architecture| a. Performance

108. Which of the following is true about heterogeneous architecture| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

114. In SOA architecture, Interoperability means what| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

118. SAPCO stands for which| a. It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other

121. In user interface evaluation step, we should focus on what| c. The usability of the interface

At software developement time, the software element are| source code modules or files which...

Which of following is Not True about Detailed design step?| We will describe...

For sofware project resource allocation, the sofware element are..| Specific manipulation

129. UML diagrams are \_\_\_\_\_\_\_\_ which are used for system analysis and design| Tools

Which of the following is NOT TRUE about Architecurak design step| Wel will describe the interconnection the components which visible to stakeholders

Which of the design below is better| Co 3 draw o duoi

At sofware deployment time, the sofware element are\_\_\_| The executable version

Architects use\_\_\_in sofware construction to divide and conquer the complexities of a problem domain to solve the problem.| Various design strategies

What is an arechitecture design space| dai nhat thi chon

Which is not a structure which can be described in a sofware architecture?? Dynamic structure

The following diagram is a description of which architecture style?| 3 angent -> data source. DAP AN: REPOSITORY

When you apply Layered Architechture style into system architecture design , why run time performance of the system might be slow| A client request or a response to client must go through potentially several layrers.

Batch Sequence Architecture| Batch Sequence Architecture

Which the reasoning method that starts with the initial state of data and proceeds towards a goal| Forward Reasoning

Which of the following are benefits of Non-buffered Event Based architecture| Framework availabity ,Reusablity of components, Possibility of parallel execution

You will apply the batch sequential architecture when?| Developing a system where intermediate file is a sequential access fileWhich is NOT the way to make the data flow in Pipe and Filter architecture| Leave data in a center repository

Which is the purpose of Main-Subroutine Architecture?| To reuse the subroutines

Both Sequential and Parallel processing are supported by| Pipe and Filter Architecture

A Component is NOT\_\_\_. Which is the best choice?| A whole system which could be executed independent

In interaction oriented software architecture,\_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice?| The view presentation module

The key point of the interaction oriented software architecture is \_\_\_ Which is the best answer| C. In the separation of user interaction from data abstraction and business data processing

The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?| B. all of the others

In Interaction oriented software architecture, \_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice?| The data module

Which of the following is the correct statement about Component-based architecture?| - it divides the problem into sub-problem each associated with component partitions

-The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?| 3 major partitions – Data module, Control module, Presentation Module

Which of the following statement is a correct description about the job of an architecture designer?| Exhaust all possible solutions, pick up the best one

Which of the following is the main motivation of Component-based architecture?| Component reusability

What of the following statement about the characteristic in Service-oriented and Broker are Correct?| Both are hard

Which of below description is a benefit of PAC architecture style?| Complete separation

Three-tier and Client-Server architecture| Three-tier and Client-Server architecture

Which is the statement you can describe about MVC architecture style? MVC is now very popular

Which of the following attribute related to time and space?| Efficiency

Which of the following attribute related to error tolerance and avaibility?| Reliability

Which of the following attribute related to hardware independence and installability?| Portability

Which is the reason when you apply component-based architecture, overall system reliability will be increased?| you could increase the reliability....

in MVC, said that it is easy to plug-in new or change interface views mean thich of following? | it allows updating...

what of following characteristic do MVC and PAC both have?| Support for developing

1. Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing (correct)

2. Event-based architecture is difficult to test and debug| A- True (correct)

3. Main- subroutine architecture can also be applied in any object-oriented software design| B- False

4. Component deployment is a good practice in a layered architecture.| A- True

6. Client-server architecture is general is better availability than the multi-tier model| B- False

8. Sequential flow control can be predetermined in batch sequential| A- True

9. Facts are installed in the Blackboard component of the Blackboard architecture?| A- True

10. RPG is widely used to implement batch sequential| A- True

11. Event-based architecture style is a buffered architecture| False

12. Only directly adjacent layers can invoke each other’s methods in a layered architecture.| B- False

13. Java can be used to implement a pipe and filter design system| A- True

14. The control flow in batch sequential is implicit.| True

16. In Thin-client type, the server includes which of the following processing| C- Data storage processing, Business Logic Processing

17. Implicit notification is often used in blackboard architecture| A- True

18. The control flow in pipe and filter is explicit.| A- True

19. FPT’s University CMS is an example of repository design| True

20. The master-slave architecture is a specialized form of main-subroutine architecture|True

21. In Fat-client type, the client includes which of the following processing| A- Presentation processing, Business Logic Processing

22. Repository architecture design could NOT be object-oriented design| True

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True

24. which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| D- Blackboard architecture

25. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| True

The testing of synchronous architecture is more straightforward than asynchronous architecture.| True

27. Two modules in a data flow system can change their order without any constrains.| B- False

28. Multiple event targets can register with same event source.| A- True

29. Hierarchical architecture is a procedure-oriented design paradigm only.| A- False

30. Sequential flow control can be predetermined in pipe and filter.| A- True

32. Which of the following is not an open-close principles’s implication?| b. Feel free to change software code.

33. Architecture design is about choosing the right single architecture style for a project| b. False

34. Software quality attributes must satisfy functional requirements| b. False

35. UML diagrams are used for system analysis and design| a. True

36. The CRC card method in used to identify the responsiblities of each class| True

37. Which of the following notations is used to support the physical view?| d. Non of the others

38. Which of the following are considered as implementation attributes?| a. Interoperability, maintainability, prortability, fexibility

39. Which of the following notations is used to support the logical view?| d. All of the others

40. Pipe-and-Filter is one of the architecture styles| True

41. In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a desscription of a box as follow “John:Doctor”. Which of the following is correct experssion?| a. An object named “John” whose class is “Doctor”

c. Sequence diagram both concurrencies and loops can be specified| c. Sequence diagram both concurrencies and loops can be specified

43. Which of the following diagram is NOT an structural diagram| 43. Which of the following diagram is NOT an structural diagram

44. The purpose of the software design phase is to product a software requirement specification| False

45. What is a class involved in accomplishing the responsibility of a class called in CRC modeling?| a. Collaboration

47. Which of the following is open-close principle?| b. Open to extension, close to modification

48. Use case diagrams are generated in the early stages of the SDLC. Whereas deloyment diagrams are generated in the later stges of the SDLC.| a. True

49. Software architecture design is based on the software requirement specification| True

50. Which are the categories of operations that a class can provide?| b. Constructor, Destructor, Accessor, Mutator

51. Which of the following are considered as Runtime attributes| b. Availability, Security, Performance, Usabilty

52. Object-oriented design is a design methodology| True

53. Which view in “4+1” view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.| a. Logical view

54. Which of the following is a feature of object oriented methodology?| d. Inheritance

55. Which is NOT a structure which can be described in a software architecture?| c. Operation structure

56. Architecture styles contribute to software quality attributes| a. True

57. Which of the following structures descibe the dynamic properties of software architecture?| c. Software runtime structure

58. Abstraction via inheritance is one effctive way to achieve the open-close principle| True

59. Polymorphism implies the following|c. All of the others

60. Which of the following are benefits of object oriented design| e. All of the others

61. Which of the following is an architecture design evaluation methodology?| a. SAAM

62. SAAM relies on scenarios to test an architecture design| b. True

63. Which of the following is NOT a benefit of Component architecture| a. Performance

64. RMI is an example of the broker architecture| b. True

65. Which of the following is NOT a typical style of distributed architecture?| MVC

66. In SOA architecture, Interperability means what?| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

67. Event-based architecture is appropriate for a compiler in an IDE design| a. False.

68. The image below is an example of static style of user interce’slaout? Which which is the correct answer?| a. It’s 1D layout

69. The abstraction and presentation components in a PAC agent do not talk to each other directly| a. True

70. The PAC architecture is a hieracchically structured sofware architecture| a. True

71. There is always onlyone architecture design that can meet all requirements| a. False

a. The usability of a user interface is enhanced by consistency and integration.| a. The usability of a user interface is enhanced by consistency and integration.

73. A component architecture can be derived from use case analysis and business concept diagrams| a. True

74. Which of the following is NOT the benefit of Broker architecture style?| a. Easy in testing

75. Blackboard architecture is difficult to debug and test.| True

76. Modifiability and expandability are essentially the same quality attribute.| False

77. Client-server architecture in general is more scalable than the multi-tier model? False

78. Implicit notication is often used in the MVC architecture.| True

79. Google Map is an example of services in SOA architecture| True

80. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True

81. Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style| True

82. Which of the following is TRUE about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

83. Coupling in message-driven architecture is even looser than in event-driven architecture| a. True

84. Batch sequential architecture is general more time efficient then pipe and filter| False

85. In user interface design step.User-centered factor consideration means what?| d. Designers must take into account the needs, experiences, and capabilities of the system users.

86. Core type classes can be recognized as a new component| True

87. SAPCO stands for which?| a. It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

88. Which is the most appropriate architecture style to develop a radar system like below?| PAC

89. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?| b. Client-side proxy

90. In user interface evaluation step, we should focus on what?| c. The usability of the interface

1. The constituent elements of software architecture are software elements and their connections| False

2. Software architecture design involves many software design methodologies and architecture styles.|True.

3. Software architecture = software architecture styles.| False.

4. Which of the following structures describe the static properties of software architecture?| Software code structure.

5. Different architecture structures have different element and connector types.| True.

6. Element and connector attributes are derived from the project requirements.| True.

7. Divide-and-conquer is not a suitable methodology for architecture design.| False.

8. Deployment decisions should be reflected in early architecture designs.| False.

9. Activity diagrams are used to support the process view.| True.

10. Deployment diagrams are used to support the physical view.| True.

11. Component diagrams are used to support the development view.| True.

12. The software sub modules and their interfaces are described in the logical view.| True.

13. Concurrency control activity is part of the process view.| True

14. System and network configuration decisions are part of the physical view.| True.

15. Software architecture is concerned only with functional requirements.| False.

16. Prototyping can be used to support UI design.| True.

17. ADL is a programming language.| False.

18. ADL can produce target code.| True.

19. ADL is used only for software architecture specification.| False.

20. Composite structure diagrams are based on object diagrams.| True.

21. Component diagrams are based on object diagrams.| True.

22. A UML diagram must provide a complete view of the entire software system.| True.

23. A component is a class or an object.| False.

24. Asynchronous message invocation can be expressed in sequence diagrams.| True.

25. Conditional branching can be represented in sequence diagrams.| True.

26. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.| True.

27. An interaction overview diagram is based on all low-level interaction diagrams.| True.

28. Architecture design is about choosing the right single architecture style for a project| F

1. Which of the following are not benefits of pipe and filter?| Interactive.

2. Which of the followings are not benefits of batch sequential?| Interactive.

3. COBOL is widely used to implement batch sequential.| True.

4. Two modules in a data flow system can change their order without any constraints.| False.

5. Java can be used to implement a pipe and filter design system.| True.

6. The control flow in pipe and filter is explicit.| True.

7. The control flow in batch sequential is implicit.| True.

8. There are data sharing (shared data) among all subsystems in a data flow system.| False.

9. Sequential flow control can be predetermined in pipe and filter.| True.

10. Sequential flow control can be predetermined in batch sequential.| True.

1. Which of the following is not a benefit of repository architecture?| Concurrency.

2. Which of the following is a typical design domain of blackboard architecture?| AI system.

3. The Yellow Page of web service is an example of repository design.| True.

4. Implicit notification is often used in blackboard architecture.| True.

5. Repository architecture design must also be object-oriented design.| False.

6. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True.

7. Loose coupling is used between repository agents.| True.

8. There is tight dependency of agents on the data store in the repository architecture.| True.

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| False.

10. The facts or hypotheses are stored in the knowledge source component of a blackboard system.| False.

1. Which of the following is not a benefit of hierarchical architecture?| Concurrency.

2. Which of the following is a disadvantage of hierarchical architecture?| Overhead.

3. Web service is an example of hierarchy architecture design.| True.

4. Hierarchical architecture is a procedure-oriented design paradigm only.| False.

5. Hierarchical architecture can also be applied in any object-oriented software design.| True.

6. Only directly adjacent layers can invoke each other’s methods in a layered architecture.| False.

7. Component deployment is a good practice in a layered architecture.| True.

8. There is data sharing between all layers in a layered architecture.| False.

9. The callback method is typically used in a main-subroutine architecture.| False.

10. The master-slave architecture is a specialized form of main-subroutine architecture.| True.

11. Which of the following is not one of the benefits of distributed architecture?| Supports multiple views

12. Which of the following is not a typical style of distributed architecture?| Hierarchical architecture.

13. Client-server architecture in general is more scalable than the multi-tier model.| False.

14. CORBA is an example of the broker architecture.| True.

15. Web service is an example of SOA architecture.| True.

3. CCM is a target technology for component technology.| a. True

4. Each component may have its provided ports and required ports from other components.| a. True

5. Each component must have its provided ports and required ports| b. False

6. The provided interface ports may be in synchronous or asynchronous modes.| a. True

7. A component architecture can be derived from use case analysis and business concept diagram.| a. True.

8. Core type classes can be recognized as a new component.| a. True.

9. A core type component does not depend on any other classes.|a. True.

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True.

1. Which of the following is used to evaluate architecture designs?| d. ALL

2. Which of the following is true about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

3. Modifiability and expandability are essentially the same quality attribute.| False

4. SAAM relies on use cases to test an architecture design.| False

5. There is always an architecture design that can meet all requirements.| False

6. Service-oriented architecture is stateless, while component-based architecture is not.| True

7. Batch sequential architecture is generally more time efficient than pipe and filter.| False

8. It is beneficial to integrate architecture design with the process of requirements analysis| a. True

9. Event-based architecture is a good candidate for interactive systems with graphic user interface.| True

10. Blackboard architecture is difficult to debug| True

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.| Fasle

2. Chapter 3 of this book, on “models for software architecture,” has nothing to do with user interfaces described in this chapter.| False

3. User interface refers to static components and their layout, not dynamically displayed information.| False

4. The MVC models suggest the separation of the user interface from the logic of the software system?| a. True.

6. The look and feel of a user interface can be defined by using engineering rules.| False

7. A customizable user interface is not a good style since it will confuse users.| False

8. The usability of a user interface is enhanced by consistency and integration.| True

9. The acronym SAPCO describes| c. The satisfactory principles of user interfaces

10. The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.| True

1. The constituent parts the architecture of a system are:| a. Its components, connectors, and the rules governing their interactions

2. Domain analysis identifies the various common features in a domain and their differences.| True

3. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.| False

4. Product line processes are a way to institutionalize systematic reuse.| False

5. Design-for-commonality anticipates variation without compromising commonality.| False

6. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.| True

7. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach.| True

8. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.| False

9. Reuse is not an end in itself but a means to an end.| True

10. Reusable assets are limited to code components.| False

11. Software components do not need adaption.| b. False

12. Horizontal reuse refers to the use of an asset across several distinct domains or different product line.| a. True

Which of the following is not a benefit of the MVC architecture?| Support multiple independent agents

Which of the following is a typical design domain for the MVC architecture?| Web server site application

Traffic control agents in a city traffic management system may be designed using PAC.| True

Implicit notification is often used in the MVC architecture.| True

The data in the Model component of the MVC architecture is active| True

The data in the Abstraction component of a PAC agent is passive.| True

PAC agents are loosely couple.| True

The Abstraction and Presentation component in a PAC agent do not talk to each other directly.| True

The "Look and Feel" feature is well supported in the MVC architecture.| True

The PAC architecture is a hierarchically structured software architecture.| True

Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

Which is the reason why software reuse is critical? | A. All of the others

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | A. 2 partitions

Which is NOT a software structure that software architecture can be described with? | C. State structure

Choose the incorrect statement. | C. UML diagram could be group into 3 major categories: Structural, Behavioral and Deployment.

Which is the correct order of these steps? | Determine… => Quantify… => Compute…

According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be? | B.Method

Availability refers to \_\_\_\_ | D. The ability of a system to be available 24x7

Portability refers to \_\_\_\_ | A. The ability to modify the system and extend it conveniently.

In User Interface design step, Information representation factor consideration means what?|A. Designers must take into account the needs, experiences, and capabilities of the system users.

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | C. Component-based > Object-oriented > Functional-oriented > Service-based

Quality attributes could be categorized into 3 groups which are? | A. Implementation attributes, Runtime attributes, Business attributes

In Layered architecture, the interface of each layer encapsulates \_\_ | A. All detailed service implementations in the current layer and the interfaces of the layers below.

You will apply the batch sequential architecture when? | A. Developing a system where intermediate file is a sequential access file.

Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate response? | D. Buffered message-based architecture

Which is the correct order in Object oriented design process? | Identify => Build=>Construct=>Class overview=>Class Detail

Which view in "4+1" view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc.? | A. Logical view

Polymorphism implies \_\_\_\_\_ | A. The invocation of a method is determined at run time

In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output data? | C. Batch sequential architecture

Which of the following is a INCORRECT description about component in Component-based architecture? | C. A Component is NOT a modular.

Which is the CORRECT statement about a pipe? | B. A Pipe moves a data stream from one filter to another.

In UML 2.0, Which of the following is TRUE? | C. Sequence Diagram describes time sequence of messages passed between objects in timeline.

Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute? | C. Efficiency D. Productivity E. Functionality

Which of the following is TRUE about buffered message system? | B. All of the others

Which of the following is NOT the benefit of Broker architecture style? | A. Easy in testing.

Which of the following is a limitation of Layered architecture? | D. Lower runtime performance

Three Object Oriented Principles are which of following? | D. Encapsulation, Inheritance, Polymorphism

Which of the following are PAC architecture's benefits? | B. All of the others

In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice? | C. The view presentation module

In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice? | B. The data module

In Blackboard architecture, a controller takes which role? | B. It takes a bootstrap role and overall supervision control.

Which of the following is the INCORRECT statement about passive filter? | B. It lets connected pipes to push data in and pull data out.

UML diagrams are \_\_\_\_ which are used for system analysis and design | C. Tools

According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | B. Blocking

Which of the following is buffer-based software architecture? | A. Peer-to-Peer connection

Security belongs to which of the following quality attributes group? | C. Runtime attributes

What is the CORRECT statement about virtual repository? | D. A virtual repository is built up on the top of multiple physical repository

What is the INCORRECT statement about distributed repository? | B. All data are centralized

Which of the following is an Open-Close principle's implication? | A. Separate interface and implementation

Which of the following is NOT an architecture style in hierarchical architecture? | C. Client-Server architecture

For software project resource allocation, the software element are \_\_\_\_ | A. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module below? | D. Controller module

Which of the following is used to evaluate architecture design? | A. All of the others

Activity diagrams are used to support \_\_\_\_ | C. The process view

In User Interface design step, Friendliness factor consideration means what? | C. The behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

Which of the following is a benefit of component-based architecture? | C. Independency and flexible connectivity of components

According to IEEE Standard 1471, The system architecture is \_\_\_\_ | C. A collection of components organized to accomplish a specific function or set of functions.

In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | E. Skeleton

In Thin-Client type, the server includes which of the following processing. | B. Data Storage Processing, Business Logic Processing

Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture

Which of the following statement is TRUE? | D. The usability of a user interface is reduced by consistency and integration.

Which architecture style supports loose coupling between legacy systems and modern systems for integration development? | A. Buffered message-based architecture

Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

Event-based architecture is difficult to test and debug | True (correct)

Main- subroutine architecture can also be applied in any object-oriented software design | True

Component deployment is a good practice in a layered architecture. | True (correct)

In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

Client-server architecture is general is better availability than the multi-tier model | False (correct)

The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

Sequential flow control can be predetermined in batch sequential. | True (correct)

Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

RPG is widely used to implement batch sequential | True….

Event-based architecture style is a buffered architecture | False

Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False

Java can be used to implement a pipe and filter design system. | True

The control flow in batch sequential is implicit. | True

The following image is an example of one of architecture style below. Which is the best choice?|Process-Control architecture

In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

Implicit notification is often used in blackboard architecture. | True

The control flow in pipe and filter is explicit. | True

FPT’s University CMS is an example of repository design | True

The master-slave architecture is a specialized form of main-subroutine architecture | True

In Fat-client type, the client includes which of the following processing | Presentation processing, Business Logic Processing

Repository architecture design could NOT be object-oriented design | True

Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True

which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

The testing of synchronous architecture is more straightforward than asynchronous architecture.|True

Two modules in a data flow system can change their order without any constrains. | False

Multiple event targets can register with same event source. | True

Hierarchical architecture is a procedure-oriented design paradigm only.False

Sequential flow control can be predetermined in pipe and filter. |True

Which of the following is not an open-close principles’s implication? | Feel free to change software code.

Architecture design is about choosing the right single architecture style for a project | False

Software quality attributes must satisfy functional requirements | False

UML diagrams are used for system analysis and design | True

The CRC card method in used to identify the responsibilities of each class | True

Which of the following notations is used to support the physical view? | Non of the others

Which of the following are considered as implementation attributes? | Interoperability, maintainability, portability, flexibility

Which of the following notations is used to support the logical view? | All of the others

Pipe-and-Filter is one of the architecture styles | True

In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression? | An object named “John” whose class is “Doctor”

In UML 2.0 Which of the following is true? | Sequence diagram both concurrencies and loops can be specified

Which of the following diagram is NOT an structural diagram | Sequence diagram

The purpose of the software design phase is to product a software requirement specification|False

What is a class involved in accomplishing the responsibility of a class called in CRC modeling?|Collaboration

Which is the following diagram called?

a. Class diagram

b. Package diagram

c. Component diagram

d. Deployment diagram

e. Object diagram

Which of the following is open-close principle? | Open to extension, close to modification

Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.| True

Software architecture design is based on the software requirement specification | True

Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usabilty

Object-oriented design is a design methodology | True

Which view in “4+1” view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc. | Logical view

Which of the following is a feature of object oriented methodology? | Inheritance

Which is NOT a structure which can be described in a software architecture? | Operation structure

Architecture styles contribute to software quality attributes | True

Which of the following structures describe the dynamic properties of software architecture?|Software runtime structure

Abstraction via inheritance is one effective way to achieve the open-close principle | True

Polymorphism implies the following: | All of the others

Which of the following are benefits of object oriented design? | All of the others

Which of the following is an architecture design evaluation methodology? | SAAM

SAAM relies on scenarios to test an architecture design | True

Which of the following is NOT a benefit of Component architecture | Performance

RMI is an example of the broker architecture | True

Which of the following is NOT a typical style of distributed architecture? | MVC

In SOA architecture, Interperability means what? | Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

Event-based architecture is appropriate for a compiler in an IDE design | False

The image below is an example of static style of user interce’slaout? Which which is the correct answer? | It’s 1D layout

The abstraction and presentation components in a PAC agent do not talk to each other directly|True

The PAC architecture is a hierarchically structured software architecture | True

There is always only one architecture design that can meet all requirements | False

Which of the following statements is TRUE? | The usability of a user interface is enhanced by consistency and integration.

A component architecture can be derived from use case analysis and business concept diagrams|True

Which of the following is NOT the benefit of Broker architecture style? | Easy in testing

Blackboard architecture is difficult to debug and test. | True

Modifiability and expandability are essentially the same quality attribute. |False

Client-server architecture in general is more scalable than the multi-tier model | False

Implicit notication is often used in the MVC architecture | True

Google Map is an example of services in SOA architecture | True

The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style | True

Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Batch sequential architecture is general more time efficient then pipe and filter | False

In user interface design step.User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

Core type classes can be recognized as a new component | True

SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

Which is the most appropriate architecture style to develop a radar system like below? | PAC

In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture Style? | Client-side proxy

In user interface evaluation step, we should focus on what? | The usability of the interface

The constituent elements of software architecture are software elements and their connections. | False

Software architecture design involves many software design methodologies and architecture styles. | True.

Software architecture = software architecture styles. | False.

Which of the following structures describe the static properties of software architecture?|Software code structure.

Different architecture structures have different element and connector types. | True.

Element and connector attributes are derived from the project requirements. | True.

Divide-and-conquer is not a suitable methodology for architecture design. | False.

Deployment decisions should be reflected in early architecture designs. | False.

Activity diagrams are used to support the process view. | True.

Deployment diagrams are used to support the physical view. | True.

Component diagrams are used to support the development view. | True.

The software sub modules and their interfaces are described in the logical view. | True.

Concurrency control activity is part of the process view.

System and network configuration decisions are part of the physical view. | True.

Software architecture is concerned only with functional requirements. | False.

Prototyping can be used to support UI design. | True.

ADL is a programming language. | False.

ADL can produce target code. | True.

ADL is used only for software architecture specification. | False.

Composite structure diagrams are based on object diagrams. | True.

Component diagrams are based on object diagrams. | True.

A UML diagram must provide a complete view of the entire software system. | True.

A component is a class or an object. | False.

Asynchronous message invocation can be expressed in sequence diagrams. | True.

Conditional branching can be represented in sequence diagrams. | True.

An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True.

An interaction overview diagram is based on all low-level interaction diagrams. | True.

Architecture design is about choosing the right single architecture style for a project | F

Which of the following are not benefits of pipe and filter? | Interactive.

Which of the followings are not benefits of batch sequential? | Interactive.

COBOL is widely used to implement batch sequential. | True.

Two modules in a data flow system can change their order without any constraints. | False.

Java can be used to implement a pipe and filter design system. | True.

The control flow in pipe and filter is explicit. | True.

The control flow in batch sequential is implicit. | True.

There are data sharing (shared data) among all subsystems in a data flow system. | False.

Sequential flow control can be predetermined in pipe and filter. | True.

Sequential flow control can be predetermined in batch sequential. | True.

Which of the following is not a benefit of repository architecture? | Concurrency.

Which of the following is a typical design domain of blackboard architecture? | AI system.

The Yellow Page of web service is an example of repository design. | True.

Implicit notification is often used in blackboard architecture. | True.

Repository architecture design must also be object-oriented design. | False.

Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True.

Loose coupling is used between repository agents. | True.

There is tight dependency of agents on the data store in the repository architecture. | True.

Rule-based knowledge is installed in the blackboard component of the blackboard architecture.|False.

The facts or hypotheses are stored in the knowledge source component of a blackboard system.|False.

Which of the following is not a benefit of hierarchical architecture? | Concurrency.

Which of the following is a disadvantage of hierarchical architecture? | Overhead.

Web service is an example of hierarchy architecture design. | True.

Hierarchical architecture is a procedure-oriented design paradigm only. | False.

Hierarchical architecture can also be applied in any object-oriented software design. | True.

Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False.

Component deployment is a good practice in a layered architecture. | True.

There is data sharing between all layers in a layered architecture. | False.

The callback method is typically used in a main-subroutine architecture. | False.

The master-slave architecture is a specialized form of main-subroutine architecture. | True.

Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

Client-server architecture in general is more scalable than the multi-tier model. | False.

CORBA is an example of the broker architecture. | True.

Web service is an example of SOA architecture. | True.

CCM is a target technology for component technology. | True.

Each component may have its provided ports and required ports from other components.|True

Each component must have its provided ports and required ports.| False.

The provided interface ports may be in synchronous or asynchronous modes. | True

A component architecture can be derived from use case analysis and business concept diagram. | True.

Core type classes can be recognized as a new component. | True.

A core type component does not depend on any other classes. | True.

The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True.

Which of the following is used to evaluate architecture designs? | ALL

Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

Modifiability and expandability are essentially the same quality attribute. | False.

SAAM relies on use cases to test an architecture design. | False.

There is always an architecture design that can meet all requirements. | False.

Service-oriented architecture is stateless, while component-based architecture is not.|True.

Batch sequential architecture is generally more time efficient than pipe and filter.| False.

It is beneficial to integrate architecture design with the process of requirements analysis.|True.

Event-based architecture is a good candidate for interactive systems with graphic user interface.| True.

Blackboard architecture is difficult to debug. | True.

A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | False.

Chapter 3 of this book, on “models for software architecture,” has nothing to do with user interfaces described in this chapter. | False.

User interface refers to static components and their layout, not dynamically displayed information. | False.

The MVC models suggest the separation of the user interface from the logic of the software system? | True.

The look and feel of a user interface can be defined by using engineering rules. | False.

A customizable user interface is not a good style since it will confuse users. | False.

The usability of a user interface is enhanced by consistency and integration. | True.

The acronym SAPCO describes | The satisfactory principles of user interfaces

The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.|True.

The constituent parts the architecture of a system are: | Its components, connectors, and the rules governing their interactions.

Domain analysis identifies the various common features in a domain and their differences. | True.

Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.|False.

Product line processes are a way to institutionalize systematic reuse.| False.

Design-for-commonality anticipates variation without compromising commonality.|False.

A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals. | True.

The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach. | True.

A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False.

Reuse is not an end in itself but a means to an end. | True.

Reusable assets are limited to code components. | False.

Software components do not need adaption. | False.

Horizontal reuse refers to the use of an asset across several distinct domains or different product line. | True.

Which of the following is not a benefit of the MVC architecture? | Support multiple independent agents

Which of the following is a typical design domain for the MVC architecture? | Web server site application

Traffic control agents in a city traffic management system may be designed using PAC. | True

Implicit notification is often used in the MVC architecture. | True

The data in the Model component of the MVC architecture is active | True

The data in the Abstraction component of a PAC agent is passive. | True

PAC agents are loosely couple. | True

The Abstraction and Presentation component in a PAC agent do not talk to each other directly.|True

The "Look and Feel" feature is well supported in the MVC architecture.| True

The PAC architecture is a hierarchically structured software architecture. |True

A \_\_\_ is a collection of computational and storage devices connected through a communications network. | Distributed system

Which kind of class is not used in ananalysis class diagram? | Concrete class

Which of the following is NOT buffer-based? | Callback

When do we use pipe & filter architecture? | All of the others

Which is a deployable software package that can provide services to its clients? | Component

For a large-scale software project, \_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness | heterogeneous architecture

The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions:\_\_\_\_\_\_\_and. | evene sources/event receivers

The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ | composite diagram

The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. | passive/active

\_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world. | Interoprrability

Successive sets of data, where data and operations on it are independent of each other. | data flow

Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which kind of UML diagram can be expressed asynchronous message invocation? | sequence diagram

Select correct statement(s): Statement 1:Good software architectural designs are based on the recursive application of the"divide-and-conquer" methodology. Statement 2: Good software architectural designs are based on the recursive application of refinement of abstractions. | Statement 1 is correct

\_\_\_\_\_\_\_\_\_ is a modular(cohesive), deployable(portable), replaceable(plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

Select the disadvantages of direct manipulation | None of the others

Select incorrect statement | Agents in the repository architecture normally do not talk with each other directly, except though datastore.

Which of following software system cannot be designed using PAC? | Compiler

Select incorrect statement about module ininteraction-oriented software architecture | The dat are pository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data in itialization and system configuration actions.

How many different way are there to move data in P/F? | 3

Which is not correct way to use a component? | lookup in EJB

Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

Which is not component in interaction-oriented software architecture? | Data repository

Select correct statement | Concurrency is not supported in batch-sequential architecture

To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-of in this case? | Tradeoff between scalability and performance

Which tool can be used to describe an architecture style? | "4+1" view model

Select correct statement(s) | All of the others

Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. | Hierarchical

Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners & Event sources

Which are the different between component-oriented design and object-oriented design? | All of the others

Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

There are two categories of data-centered architecture:\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | blackboard & repository

The benefit of the broker architecture | All of the others

Which of the following is NOT the benefit of the MVC architecture? | Supports multiple in dependent agents

Which of the followings is NOT the benefit of hierarchical architecture? | concurrency

Which of the followings is NOT the benefit of repository architecture? | Loose coupling

Which of the following is true? | All of the others

Which is dynamic diagram? | Use-case diagram

Select correct statement | None of the others

Select incorrect statement | JDBC is XML based

The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. | Master-slave architecture

Typical OO languages include the following: | All of the others

Select incorrect statement | .Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select the benefits of nonbuffered event-based implicit invocation architecture | All of the others

Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.|Blackboard

Which of the following notations is not used to support the logical view? | Deployment diagram

Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

SDD

Which of the following is not considered as event-driven? | Callback

Polymorphism implies the following | the same operation might be have differently at run time

\_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures. | Client-server model

In Client/Server architecture | All of the others

Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

Select correct statement about inheritance | Class can inheritances more than one interface

Which of the following is true? | All of the others (web services are examples of service-oriendted architecture, the application domain of process control style includes real-time systems, web application are examples of client-server architecture)

Which of the following is typical design domain for the MVC architecture? | Web client site application

QN=1 (10168)Choose the correct statement. | Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world.

QN=2 (10157)Which of the following are considered as Business attributes? |Time to market, Lifetime, Cost

QN=3 (10153)Portability belongs to which of the following quality attributes group? | Implementation attributes

QN=4 (10156)Architecture Styles contribute to which of the following? | Software Quality Attributes

QN=5 (10171)Usability belongs to which of the following quality attributes group? | Runtime attributes

QN=6 (10162)Usability refers to \_\_\_\_ | The level of "satisfaction" from a human perspective in using the system.

QN=7 (10218)In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ | A software element

QN=8 (10200)In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

QN=9 (10237)According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?| Variable

QN=10 (10211)Based on connector's synchronization mode, the connectors could be classified into which categories below? |Blocking connector and non-blocking connector.

QN=11 (10212)At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

QN=12 (10273)Which is the best answer for the meaning of the description of the class diagram below when you read it? | A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor.

QN=13 (10264)Which is the following diagram called? | Sequence diagram (Note:From user)

QN=14 (10243)Which of the following notations is used to support the physical view? | None of the others

QN=15 (10248)State machine diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

QN=16 (10261)Which is the following diagram called? | Timing diagram (From "ad RM scheduling")

QN=17 (10302)Which of the following is NOT an Open-Close principle's implication? | Feel free to change software code.

QN=18 (10306)The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

QN=19 (10300)Which of the following is an Open-Close principle's implication? | Keep attributes private

QN=20 (10290)Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

QN=21 (10281)In UML 2.0, Which of the following is TRUE? | Sequence Diagram describes time sequence of messages passed between objects in timeline.

QN=22 (10335)When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

QN=23 (10360)Which of the following is the INCORRECT statement about active filter? | It lets connected pipes to push data in and pull data out.

QN=24 (10328)Which of the following statement is TRUE? | One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

QN=25 (10363)Which of the following is the INCORRECT statement about passive filter? | It works with a passive pipe which provides read/write mechanisms for pulling and pushing.

QN=26 (10357)Which of the following is a CORRECT statement? | Filters can run in separate threads of the same process.

QN=27 (10396)The following image is an example of which architecture style? | Repository architecture style and (?) is a Data Repository

QN=28 (10392)In the Repository architecture, Said that the client control the logic flow means what? | The software component agents control the computation, request and update data on repository actively.

QN=29 (10380)\_\_\_ are installed in the Blackboard component of the blackboard architecture | Facts

QN=30 (10400)Data store reliability and availability are limitations of which architecture style below? | Repository architecture

QN=31 (10374)Which of the following is the benefit of Blackboard Architecture? | Concurrency

QN=32 (10429)In DFD, the follow image is a representation of which flow? | Transaction flow

QN=33 (10409)Which of the following is NOT the limitation of layered architecture? | Incremental software development based on increasing levels of abstraction.

QN=34 (10437)With an application that has clean divisions between core services, critical services, user interface services…. Which architecture style will you apply? | Layered architecture

QN=35 (10441)A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank? | A virtual abstraction

QN=36 (10415)Which of the following is the limitation of virtual machine architecture? | Overhead due to the new layer

QN=37 (10450)The limitation of message-driven architecture over event-driven architecture is which of the following? | Capacity of message queue.

QN=38 (10475)Which architecture style supports scalability and reliability better? | Buffered message-based architecture (2)

QN=39 (10463)When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.Among the styles below, which is the architecture style you will choose to apply into your system architecture? | Buffered Message-based Architecture style

QN=40 (10449)Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

QN=41 (10490)Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents

QN=42 (10484)The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice? | 3 major partitions - Data module, Control module, Presentation Module

QN=43 (10528)When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose? | PAC architecture

QN=44 (10503)What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

QN=45 (10492)Which of the followings is a typical design domain of the MVC architecture? | Web server site application

QN=46 (10494)Which of the following are PAC architecture's benefits? | All of the others

QN=47 (10569)In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | Broker

QN=48 (10540)Which of the followings is a style of distributed architecture? | Service Oriented architecture

QN=49 (10562)Which of the following is the most important quality attribute of Broker architecture style? | Better decoupling between clients and servers

QN=50 (10533)Which of the followings is NOT the benefit of distributed architecture? | Testability

QN=51 (10541)The image below describes a distributed architecture style. Choose which the suitable style is? | SOA

QN=52 (10578)Which is the reason of the increase of overall system reliability when you apply component-based architecture? | The reliability of each individual component enhances the reliability of the whole system via reuse.

QN=53 (10570)Which of the following description is TRUE? | A component is stored in a binary format, executable and deployable.

QN=54 (10585)Which of the following is a benefit of component-based architecture? | Independency and flexible connectivity of components

QN=55 (10602)Which of the following attribute relates to time and space? | Efficiency

QN=56 (10600)SAAM is which of the following methods? | Software Architecture Analysis Method

QN=57 (10605)Which of the following attribute relates to user interfaces' learning ability? | Usability

QN=58 (10628)In User Interface design step, Separation factor consideration means what? | Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations.

QN=59 (10624) In User Interface design step, Intuitive factor consideration means what? | The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

QN=60 (10645) Design produces architectures that specify products and components in the form of which of the following? | An abstract-level design solution

Agents in the repository architecture normally do not talk with each other directly, except though the data

store | A True

An event can be either visible or invisible | A True

COBOL is widely used to implement batch sequential | B True

Component deployment is a good practice in a layered architecture | A True

Coupling in message-driven architecture is even looser than in event-driven architecture | A True

Facts are installed in the Blackboard component of the blackboard architecture | B True

FPT University's CMS site is an example of repository design | B True

Hierarchical architecture is a procedure-oriented design paradigm only | [B] False

Implicit notification is often used in blackboard architecture | [B] True

Java can be used to implement a pipe and filter design system | [B] True

Message-based architecture is appropriate for a compiler in an IDE design | [B] False

Multiple event targets can register with same event source | [B] True

Only directly adjacent layers can invoke each other's method in a layered architecture. | [A] False

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | [B] False

The control flow in batch sequential is implicit | [A] True

The control flow in pipe and filter is explicit | [B] True

The master-slave architecture is a specialized form of main-subroutine architecture | [A] True

The testing of synchronous architecture is more straightforward than asynchronous architecture | [A] True

The yellow page of web service is an example of repository design | [A] True

There are data sharing (shared data) among all subsystems in a data flow system | [B] False

Two modules in a data flow system can change their order without any constraints | [A] False

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | [B] A client's request or a response to client must go through potentially several layers.

Which is NOT the way to make the data flow in Pipe and Filter architecture? | [C] Leave data in a center repository

Which is the purpose of Main-Subroutine Architecture? | [C] To reuse the subroutines.

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | [D] Forward reasoning

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | [D] Blackboard Architecture

Which of the following architecture is suitable for the embedded system software design? | [C] Process-Control Architecture

Which of the following are not benefits of batch sequential? | [B] All of the others

Which of the following is a typical design domain of blackboard architecture? | [B] Al system

Which of the following are benefits of Non-buffered Event-based architecture? | [D] Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are not benefits of pipe and filter? | [D] Interactive

Which of the following is buffer-based software architecture? | [C] Publish-Subscribe Messaging (P&S)

Which of the following is one of the benefits of asynchronous architecture? | [B] Loose coupling of modules

Which of the following is the limitation of Repository Architecture Style? | [A] High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | [A] Overhead cost of moving data on network if data is distributed..

You will apply the batch sequential architecture when? | [A] Developing a system where intermediate file is a sequential access file.

Both Sequential and Parallel processing are supported by | [C] Pipe and Filter architecture

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | [A] 2 partitions

The following diagram is a description of which architecture style? | [D] Repository Architecture

The following image is an example of which architecture? | [B] Batch Sequence Architecture

Evaluating the scalability of architecture styles, which is the right order of scalability of distributed architecture styles? (">" is better) | Client-Server > Broker > Service-oriented

What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug

Which of the following statement is TRUE? | Three-tier is the same as MVC architecture

Which of the below description is a benefit of PAC architecture style? | Complete separation of presentation and abstraction

Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions

Which of the following is TRUE? | Hardware idependence does not imply software independence

Which of the statement you can describe about MVC architecture styles? | MVC is now a very popular archiecture style

Which of the most appropriate architecture style to develop a radar system like below? | PAC

The below image is a snapshot of which architecture styles following? | Event-based architecture

Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one

CORBA is a good implementation example of\_\_\_ | Broker Architecture

Which of the following is an architecture design evaluation methodology? | SAAM

Which of the following attribute related to time and space? | Efficiency

In Thin-Client type, the server includes which of the following processing | Data Storage Processing, Business Logic Processing

Which of the following is NOT a benefit of the MVC architecture? | Supports mutiple independence agents

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

The Architecture Decision Procedure includes following steps, Which is the correct order of these steps? | (2)Determine the required quality attributes in requirement analysis => (1)Quantity the quality attributes =>(3) Compute the weighted sum

Which is the statement you can describe about PAC architecture style? | PAC's Agents are loose coupling and high independent

which of the following is the main motivation of component-based architecture?|component security

the key point of the interaction oriented software architectures is\_\_\_Which is the best answer?|in the separation of user interactions from data abstraction and business data processing

the following image is an example of one of architecture style below. Which is the best choice?|Multi-tier architecture style

which of the following is not a benefit of component architecture|performance

which is an advantage of client-server architecture?|reusability of server components

which of the following is the advantage of broker architecture|changeability and extensibility

which of the following attribite related to error tolerance and availability?|reliability

Which of the following is TRUE about heterogeneous architecture?|If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Which is the reason when you apply component-based architecture, overall system reliability will be increased?|You could increase the reliability of each individual component in your own way

Which of the following attribute related to hardware independence and installability?|Portability

In SOA architecture, Interoperability means what?|Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

In Client-Server architecture style, there are follow types:|Thin-Client, Fat-Client

Which of the followings is a style of distributed architecture?|Service Oriented architecture

In MVC, said that it is easy to plug-in new or change interface views mean which of the following?|It allows updating the interface views with new technologies without overhang the rest of the system.

Which of the following is NOT the benefit of Multi-tier architecture style?|Load balancing

What of the following characteristic do MVC and PAC both have?|Support for developing interactive application

Which of the below description is a limitation of MVC architecture style?|Does not fit well agent-oriented applications such as interactive mobile and robotics applications

A component is NOT\_. Which is the best choice?|A whole system which could be executed independent

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher )|Component-based > Object-oriented > Functional-oriented > Service-based

Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

An event can be either visible or invisible | True

Both Sequential and Parallel processing are supported by | Pipe and Filter architecture

COBOL is widely used to implement batch sequential | True

Component deployment is a good practice in a layered architecture | True

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Facts are installed in the Blackboard component of the blackboard architecture | True

FPT University's CMS site is an example of repository design | True

Hierarchical architecture is a procedure-oriented design paradigm only | False

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | 2 partitions

Implicit notification is often used in blackboard architecture | True

Java can be used to implement a pipe and filter design system | True

Message-based architecture is appropriate for a compiler in an IDE design | False

Multiple event targets can register with same event source | True

Only directly adjacent layers can invoke each other's method in a layered architecture. | False

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

The control flow in batch sequential is implicit | True

The control flow in pipe and filter is explicit | True

The master-slave architecture is a specialized form of main-subroutine architecture | True

The following diagram is a description of which architecture style?(---> control flow ) | Repository Architecture

The following image is an example of which architecture? | Batch Sequence Architecture

The testing of synchronous architecture is more straightforward than asynchronous architecture | True

The yellow page of web service is an example of repository design | True

There are data sharing (shared data) among all subsystems in a data flow system | False

Two modules in a data flow system can change their order without any constraints | False

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | A client's request or a response to client must go through potentially several layers.

Which is NOT the way to make the data flow in Pipe and Filter architecture? | Leave data in a center repository

Which is the purpose of Main-Subroutine Architecture? | To reuse the subroutines.

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | Forward reasoning

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | Blackboard Architecture

Which of the following are not benefits of batch sequential? | All of the others

Which of the following is a typical design domain of blackboard architecture? | Al system

Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

Which of the following are benefits of Non-buffered Event-based architecture? | Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are not benefits of pipe and filter? | Interactive

Which of the following is buffer-based software architecture? | Publish-Subscribe Messaging (P&S)

Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

Which of the following is the limitation of Repository Architecture Style? | High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | Overhead cost of moving data on network if data is distributed..

You will apply the batch sequential architecture when? | Developing a system where intermediate file is a sequential access file.

1. Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecure styles? (“>” is better) | Client-Server > Broker > Service-oriented

2. What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug.

3. Which of the following statement is TRUE? | Three-tier is the same as MVC architecture.

4. Which of the below description is a benefit of PAC architecture style? | Complete sepatation of presentation and abstraction

5. Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

6. Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

7. Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions.

8. Which of the following is TRUE? | Hardware independence does not imply software independence

9. Which is the statement you can describe about MVC architecture style? | MVC is now a very popular architecture style.

10. Which is the most appropriate architecture style to develop a radar system like below? | PAC

11. The below image is a snapshot of which architecture styles following? | Event-based architecture

12. Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one.

13. CORBA is a good implementation example of \_\_\_ | Broker Architecture

14. Which of the following is an architecure design evaluation methodology? | SAAM

15. Which of the following attribute related to time and space? | Efficiency

16. In Thin-Client type, the server includes which of the following processing. | Data Storage Processing, Business Logic Processing

17. Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents.

18. ATAM is which of the following methods? | Architecture Trade-off Analysis Method

19. The architectural Decision Procedure includes following steps:

(1): Quantify the quality attributes

(2): Determine the re required quality attributes in requirement analysis

(3): Compute the weighted sum

Which is the correct order of these steps? | 2 => 1 => 3

20. Which is the statement you can describe about PAC architecture syle? | PAC’s Agents are loose coupling and high independent.

21. Which of the following is the main motivation of Component-based architecture? | Component reusability

22. The key point of the interaction oriented software architectures is \_\_\_ Which is the best answer? | In the separation of user interactions from data abstraction and business data processing.

23. The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture style

24. Which of the following is NOT a benefit of Component architecture | Performance

25. Which is an advantage of Client- Server Architecture? | Reusability of server components.

26. Which of the following is the advantage of Broker architecture? | Changeability and extensibility

27. Which of the following attribute related to error tolerance and availability? | Reliability

28. Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architeture style, and each component can use a different one, this is an example of heterogeneous architecture

29. Which is the reason when you apply component-based architecture, overall reliability will be increased? | You could increase the reliability of each individual component in your own way.

30. Evaluating the abstraction of software development methodogy, Which is the right order? (“>” is higher) | Service-based > Component-based > Object-oriented > Functional-oriented

31. Which of the following attribute related to hardware independence and installability? | Portability

32. In SOA architecture, Interoperability means what? | Technically any client or any service can access other services redardless of their Plaform, Technology, Vendors, Language implementations

33. In Client-Server architecure style, ther are follow types | Thin-Client, Fat-Client

34. Which of the followings is a style of distributed architecture? | Service Oriented architecture

35. In MVC, said that it is easy to plug-in new or change interface views mean which of the following? | It allows updating the interface views with new technologies without overhang the rest of the system

36. Which of the following is NOT the benefit of Multi-tier architecture style? | Load balancing

37. When you are request to maker a system which can be used be users who work on different sites. It’s required that the system security attribute is high because of its working domain requirement. There are about 100.000 to 500.000 users using the system at the same time. Which architecture will you choose to apply for the system development? | Component-based architecture style

38. What of the following characteristic do MVC and PAC both have? | Support fot developing interactive application

39. Which of the below description is a limitation of MVC architecture sytle? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

40. A component is NOT \_\_\_. Which is the best choice? | A whole system which could be executed independent.

1. For what project resource allocation, the software element are \_\_\_\_ | Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

2. Object-oriented design is a design methodology | true

3. Which is the following diagram called? | state machine diagram

4. Architecture styles contribute to software quality attributes | true

5. Which of the following notations is used to support the physical view? | none of the others

6. Which of the following are considered as Runtime attributes | availability, security, performance, usability

7. In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow “Human:Player”, which of the following is correct expression? | an object named “Human” whose class is “Player”

8. Time to market belongs to which of the following quality attributes group? | Business atttributes

9. In a software architecture, a process, object, service or an instance of software component is \_\_\_ | A software element

10. UML diagrams are \_\_\_ which are used for system analysis and design | Tools

11. Which of the following is NOT TRUE about Architectural design step? | we will specify the internal details of each component

12. Which of the following notations is used to support the process view? | Activity diagram

13. Which of the design below is better? | b (hình nhìn don gi?n hon)

14. Which of the following is a principle of Object Oriented methodology? | Polymorphism

15. Which of the following are considered as Implementation attributes? | Interoperability, Maintainability, Portability, Flexibility

16. Which of the following diagram is a Structural diagram | class diagram

17. Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

18. Which of the following is the correct order of Object Oriented design steps? CRC Card Approach -> Construct Interaction Diagram->Build State Chart->Class Design

19. Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle | true

20. Which of the following is Open-Close principle? | open to extension, close to modification

21. Which of the following is NOT the role of architects? | determine market trends or needs evaluation

22. At software deployment time, the software element are \_\_ | the executable version of the project modules and files

23. The purpose of the software analysis phase is to produce a software requirement specification | true //

24. Software Architecture Design is based on the software requirement | true

25. The CRC card method is used to identify the responsibilities of each class | true

26. Which of the following is not an Open-Close principle’s implication? | Fell free to change software code

27. Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem. | various design strategies

28. Abstraction via inheritance is one effective way to achieve the open-close principle | true

29. Architect design is about choosing the right single architecture style for a project | false

30. Software quality attributes must satisfy functional requirements | false

31. What is an architecture design space? | design alternatives that can support functional and non-functional requirement specifications.

32. Which is NOT a structure which can be described in a software architecture? | operation structure

33. Which of the following structures describes the dynamic properties of software architecture? | software runtime structure

34. Based on connector’s information carrier, the connectors in software architecture might be classification into \_\_ | variable, environment resource, method, message

35. At software development time, the software element are \_\_? | Source code modules or files which have been assigned functional and non-functional attributes.

36. Which of the following is NOT TRUE about Detailed design step? | We will describe user accessible components only in this step.

37. Polymorphism implies the following: | All of others

38. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc. | logical view

39. Batch-Sequence is one of the architecture styles | true

40. In UML 2.0, which of the following is true? | sequence diagram describes time sequence of messages pass between objects in timeline.

1. Activity diagrams are used to support…… | The process view

2. With a good software design, which is benefit we will get? | It leads the risk in software production more serious

3. Which of the following is advantage of broker architecture? | Changeability and extensibility

4. The outcome of Object Oriented Analysis stage are… | Requirement Specification, Initial logic structure of the system

5. Which of the following if limitation of Non-buffered Event-Based architecture? | Reliability and overhead of indirect invocations

6. Package diagram is grouped in which of following UML diagram category? | Structure diagram

7. The Architectural Decision Procedure includes following steps |

1. Determine the required quality attributes in requirement analysis

2. Quantify the quality attributes

3. Compute the weighted sum

8. Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

9. Which of the following is TRUE for implementing the separation of the user interface from the logic of software system? | all

10. The constituent parts of the architecture of a system are which of the following? | Its component, connectors, and the rules governing their interactions.

11. Which diagram equivalent to a sequence diagram? | Collaboration diagram

12. Which of the following is NOT benefit of distributed architecture? | Supports multiple independent argents

13. Which of the following architecture is suitable for the embedded system software design? | Pipe and filter architecture

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development? | PAC architecture

15. Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message? | Based on connector’s information carrier

16. ATAM is which of the following methods? | Architecture Trace-off Analysis Method

17. Repository architecture and Backboard architecture is categorized into which of the following architecture style? | Data-centered architecture style

18. The below image is a snapshot of which architecture styles following? | MVC architecture

19. Which of the following is TRUE? | Time efficiency is usually the most important quality attribute

20. Which of the following is one limitation of Client/Server architecture? | Server availability and reliability

21. Which of the following is one of distributed architecture? | Service-Oriented architecture

22. Which of the following is limitation of message-driven architecture? | Capacity limit of message queue

23. When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

24. Which of the following attributes which could be observable at runtime? | Availability, Security, Performance

25. Which of the following is one of advantages of Component-Based architecture? | Productivity for the software development and future software development.

26. Which of the following statement is TRUE? | The usability of a user interface is enhanced by consistency and integration.

27. Which of the following is a limitation of Layered architecture? | Lower runtime performance

28. In user interface evaluation step, we should focus on what? | The usability of the interface

30. Which of the following is a limitation of component architecture? | Adaption of components

31. The acronym SAPCO is used for which of following purpose? | Describing the Easy to use attribute of user interfaces

32. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to local method invocation.

33. Polymorphism principles mean that…. | An object can have different appearance/behaviors under difference circumstances

35. Compared with SOA, the advantage of SBA is which of the following? | Allows stateful service

36. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

37. Which of the following is NOT a buffer- based software architecture | Peer-to-peer connection

39. Which of the following is an Open-Close principle’s implication? | Keep attributes private

1. Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

2. Event-based architecture is difficult to test and debug | True (correct)

3. Main- subroutine architecture can also be applied in any object-oriented software design | False

4. Component deployment is a good practice in a layered architecture. | True (correct)

5. In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

6. Client-server architecture is general is better availability than the multi-tier model | False (correct)

7. The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

8. Sequential flow control can be predetermined in batch sequential. | True (correct)

9. Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

10. RPG is widely used to implement batch sequential | True….

11. Event-based architecture style is a buffered architecture | False (correct)

12. Only directly adjacent layers can invoke each other’s methods in a layered architecture. | False (correct)

13. Java can be used to implement a pipe and filter design system. | True (correct)

14. The control flow in batch sequential is implicit. | True (correct)

15. The following image is an example of one of architecture style below. Which is the best choice? | Process-Control architecture

16. In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

17. Implicit notification is often used in blackboard architecture. | True (correct)

18. The control flow in pipe and filter is explicit. | True (correct)

20. The master-slave architecture is a specialized form of main-subroutine architecture | True

21. In Fat-client type, the server includes which of the following processing | Presentation processing, Business Logic Processing

22. Repository architecture design could NOT be object-oriented design | True

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True (correct).

24. which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

25, Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

26, The testing of synchronous architecture is more straightforward than asynchronous architecture. | True

27, Two modules in a data flow system can change their order without any constrains. | False

28, Multiple event targets can register with same event source. | True

29, Hierarchical architecture is a procedure-oriented design paradigm only. | False

30. Sequential flow control can be predetermined in pipe and filter. |True

1. The constituent elements of software architecture are software elements and their connections | False

2. Software architecture design involves many software design methodologies and architecture styles | True

3. The purpose of software design phase is to produce a software requirement specification | False

4. Object-oriented design is a design methodology | True

5. Pipe and filter is one of the architecture styles | True

6. Software architecture is a static software structure description | False

7. Software quality attributes must satify functional requirement | False

8. Architecture styles contribute to software quality attributes | True

9. Software architecture = software architecture styles | False

10. Software architecture design is based on the SRS | True

12. Which of following structures describe the dynamic properties of software architecture? | Software runtime structure.

13. Different architectures structures have different element and connector types | True

14. Element and connector attributes are derived from the project | True

15. Architecture design is about choosing the right single architecture style for a project | False

16. Divide and conquer is not a suitable methodology for architecture designs | False

17. Deloyment decisions should be reflected in early architecture | False

18. Which of the following notations is used to support the logical view? | All of the above

19. Which of the following notations is used to support the physical view? | None of the above

20. Activity diagrams are used to support the process view. True

21. Deployment diagrams are used to support the physical view | True

22. Component diagrams are used to support the development view | True

23. The software submodels and their interfaces are described in the logical view | True

24. Concurrency control activity is part of the processview | True

25. System and network configuration decisions are part of the physical view | True

26. Software architecture is concerned only with functional requirements | False

27. Prototyping can be used to support UI design | True

28. ADL is a programming language | False

29. ADL can produce tagret code | True

30. ADL is used only for software architecture specification | False

31. UML diagrams are used for system analysis and design | True

32. Usecase diagrams are generated in early stages of the SDLC, where areas deployment diagrams are generated in the later stages of the SDLC | True

33. Composite structure diagrams are based on object diagrams | True

34. Component diagrams are based on object diagrams | True

35. A UML diagram must provide a complete view of the entire software system | True

36. A component is a class or an object | False

37. Asynchronous message invocation can be expressed in sequence diagram | True

38. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

39. Conditional branching can be represented in sequence diagrams | True

40. An interaction overview diagram is based on all low-level interaction diagrams | True

41. Which of the following are benefits of OO design? | All of the above.

42. Which of the following are features of OO methodology? | Inheritance

43. C is a popular OO programming language | False

44. The set of classes in a design is nailed down when the analysis class diagram is finished | False

45. The CRC card method is used to identify the responsibilities of each class | True

46. Sequence diagrams do not describe loops in a message exchange process | False

47. A class is said to be cohesive if it supports as many associated responsibilities as possible | False

48. Abstraction via inheritance is one effective way to achieve the open-closed principle | True

49. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

50. To conform to the open-closed principle the use of global variables should be minimized | True

51. Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

52. Polymorphism implies the following: | All of the others

53. Which of the following are considered as Runtime attribute? | Availability, Security, Perfomance, Usability

54. Which of the following is not an Open-Closed principle’s implication? | Feel free to change software code

55. What is a class involved in accomplishing the responsibility of a class called in CRC modeling? | Collaborator

56. Which of the following diagram is NOT an structural diagram | Sequence diagram

57. In UML 2.0 Which of the following is true? | Sequence Diagram both concurencies and loops can be specified

58. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow “John:Doctor”. Which of the following is correct expression? | An object named “John” whose class is “Doctor”

59. Which of the following is Open-Closed principle? | Open to extension, Close to modification

60. Which is not a structure which can be described in a software architecture? | Operation structure

61. Which view in “4+1” view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc | Logicalview

64. COBOL is widely used to implement batch sequential? | True

65. Two modules in a data flow system can change their order without any constraints | False

66. Java can be used to implement a pipe and filter design system | True

67. The control flow in pipe and filter is explicit | True

68. The control flow in batch sequence is implicit | True

69. There are data sharing (shares data) among all subsystems in a data flow systems | False

70. Sequential flow control can be predetermined in pipe and filter | True

71. Sequential flow control can be predetermined in batch sequence | True

I.

- The constituent elements of software architecture are software elements and their connections. | False

- Software architecture design involves many software design methodologies and architecture styles. | True

- The purpose of the software design phase is to produce a software requirement specification. | False

- Object-oriented design is a design methodology. | True

- Pipe-and-filter is one of the architecture styles. | True

- Software architecture is a static software structure description. | False

- Software quality attributes must satisfy functional requirements. | False

- Architecture styles contribute to software quality attributes. | True

- Software architecture = software architecture styles. | False

- Software architecture design is based on the software requirement specification. | True

3. Different architecture structures have different element and connector types | True

4. Element and connector attributes are derived from the project requirements | True

5. Architecture design is about choosing the right single architecture style for a project | False

6. Divide-and-conquer is not a suitable methodology for architecture design | False

7. Deployment decisions should be reflected in early architecture designs | False

III. C3

1. Which of the following notations is used to support the logical view? | All

2. Which of the following notations is used to support the physical views? | None

3. Activity diagrams are used to support the process view | True

4. Deployment diagrams are used to support the physical view | True

5. Component diagrams are used to support the development view | True

6. The software submodules and their interfaces are described in the logical view | True

7. Concurrency control activity is part of the process view | True

8. System and network configuration decisions are part of the physical view | True

9. Software architecture is concerned only with functional requirements|False

10. Prototyping can be used to support UI design | True

11. ADL is a programming language| False

12. ADL can produce target code | True

13. ADL is used only for software architecture specification | False

14. UML diagrams are used for system analysis and design | True

15. Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC | True

16. Composite structure diagrams are based on object diagrams | True

17. Component diagrams are based on object diagrams | True

18. A UML diagram must provide a complete view of the entire software system | True

19. A component is a class or an object | False

20. Asynchronous message invocation can be expressed in sequence diagrams | True

21. Conditional branching can be represented in sequence diagram | True

22. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

23. An interaction overview diagram is based on all low-level interaction diagrams | True

IV. C4

1. Which of the following are benefits of OO design? | All

3. C is popular OO programming language | False

4. The set of classes in a design is nailed down when the analysis class diagram is finished | False

5. The CRC card method is used to identify the responsibilities of each class | True

6. Sequence diagrams do not describe loops in a message exchange process | False

7. A class is said to be cohesive if it supports as many associated responsibilities as possible | False

8. Abstraction via inheritance is one effective way to achieve the open-closed principle | True

9. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

10. To conform to the open-closed principle the use of global variables should be minimized | True

V. C5

1. Which of the following are not benefits of pipe and filter? | Interactive

2. Which of the followings are not benefits of batch sequential? | Interactive

3. COBOL is widely used to implement batch sequential | True

4. Two modules in a data flow system can change their order without any constraints | False

5. Java can be used to implement a pipe and filter design system | True

6. The control flow in pipe and filter is explicit | False

7. The control flow in batch sequential is implicit | False

8. There are data sharing (shared data) among all subsystems in a data flow system | False

9. Sequential flow control can be predetermined in pipe and filter | True

10. Sequential flow control can be predetermined in batch sequential | rue

VI. C6

1. Which of the following is not a benefit of repository architecture? | Concurrency

2. Which of the following is a typical design domain of blackboard architecture? | AI system

4. Implicit notification is often used in blackboard architecture | True

5. Repository architecture design must also be object-oriented design | False

6. Agents in the repository architecture normally do not talk with each other directly except though the data store | True

7. Loose coupling is used between repository agents | True

8. There is tight dependency of agents on the data store in the repository architecture | True

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

10. The facts or hypotheses are stored in the knowledge source component of a blackboard system | False

VII. C7

1. Which of the following is not a benefit of hierarchical architecture? | Concurrency

2. Which of the following is a disadvantage of hierarchical architecture? | Overhead

3. Web service is an example of hierarchy architecture design | True

4. Hierarchical architecture is a procedure-oriented design paradigm only | False

5. Hierarchical architecture can also be applied in any object-oriented software design | True

6. Only directly adjacent layers can invoke each other’s methods in a layered architecture | False

7. Component deployment is a good practice in a layered architecture | True

8. There is data sharing between all layers in a layered architecture | False

9. The callback method is typically used in a main-subroutine architecture | False

10. The master-slave architecture is a specialized form of main-subroutine architecture | True

11. Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

12. Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

13. Client-server architecture in general is more scalable than the multi-tier model. | False.

14. CORBA is an example of the broker architecture. | True.

15. Web service is an example of SOA architecture. | True.

VIII. C8

1. Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

2. Which of the followings is not typical design domain of the asynchronous architecture | Hierarchical structure

3. The testing of synchronous architecture is more straightforward than asynchronous architecture | True

4. Implicit notification is often used in MVC architecture | True

5. Multiple event targets can register with same event source | True

6. An event can be either visible or invisible | True

7. Coupling in message-driven architecture is even looser than in event-driven architecture | True

8. A registered event target must be ready to handle the event when the event is fired off | True

9. A message receiver is not required to be ready when the message arrives | True

10. The notification of events or messages is different from local or remote method invocation | True

11. Multiple consumers can consume a message on a message queue | True

12. An event can be declared on the fly | True

13. Message-based architecture is appropriate for a compiler in an IDE design | False

IX. C9

1. Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

2. Which of the following is a typical design domain for the MVC architecture? | Web server site application

3. Traffic control agents in a city traffic management system may be designed using PAC | True

4. Implicit notification is often used in the MVC architecture | True

5. The data in the Model component of the MVC architecture is active | True

6. The data in the abstraction component of a PAC agent is passive | True

7. PAC agents are loosely coupled | True

8. The abstraction and presentation components in a PAC agent do not talk to each other directly | True

9. The “Look and feel” feature is well supported in the MVC | True

10. The PAC architecture is a hierarchically structured software architecture | True

X. C10

1. Which of the following is not one of the benefits of distributed architecture?

a. Supports multiple independent agents

b. Scalability

c. Supports multiple views

d. Loose-coupling of modules

2. Which of the following is not a typical style of distributed architecture?

a. Client-server

b. Hierarchical structure

c. Broker

d. SOA

3. Client-server architecture in general is more scalable than the multi-tier model False

4. CORBA is an example of the broker architecture True

5. Web service is an example of SOA architecture. True

XI. C11

1. which of the following is not a benefit of component architecture? | Concurrency

2. Which of the following is not a benefit of component architecture? | Performance

3. CCM is a target technology for component technology | True

4. Each component may have its provided ports and required ports from other components | True

5. Each component must have its provided ports and required ports | False

6. The provided interface ports may be in synchronous or asynchronous modes | True

7. A component architecture can be derived from use case analysis and business concept diagrams | True

8. Core type classes can be recognized as a new component | True

9. A core type component does not depend on any other classes | True

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components | True

XII. C12

1. Which of the following is used to evaluate architecture designs? | ALL

2. Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

3. Modifiability and expandability are essentially the same quality attribute | False

4. SAAM relies on use cases to test an architecture design | False

5. There is always an architecture design that can meet all requirements | False

6. Service-oriented architecture is stateless, while component-based architecture is not | True

7. Batch sequential architecture is generally more time efficient than pipe and filter | False

8. It is beneficial to integrate architecture design with the process of requirements analysis | True

9. Event-based architecture is a good candidate for interactive systems with graphic user interface | True

10. Blackboard architecture is difficult to debug | True

XIII. C13

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs | False

2. Chapter 3 of this book, on “models for software architecture”, has nothing to do with user interfaces described in this chapter. | False

3. User interface refers to static components and their layout, not dynamically displayed information. | False

4. The MVC model suggests the separation of the user interface from the logic of the software system. | True

5. Which of the following is true for implementing the separation of the user interface from the logic of the software system? | All

6. The look and feel of a user interface can be defined by using engineering rules | False

7. A customizable user interface is not a good style since it will confuse users. | False

8. The usability of a user interface is enhanced by consistency and integration | True

9. The acronym SAPCO describes | The satisfactory principles of user interfaces

10. The Java programming language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces | True

XIV. C14

1. The constituent parts of the architecture of a system are” | Its components, connectors, and the rules governing their interactions

2. Domain analysis identifies the various common features in a domain and their differences | True

3. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain | False

4. Product line processes are a way to institutionalize systematic reuse | False

5. Design-for-commonality anticipates variation without compromising commonality | False

6. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goal. | True

7. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset-supported development approach | True

8. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False

9. Reuse is not and end in itself but a means to an end | True

10. Reusable assets are limited to code components | False

11. Software components do not need adaptation | False

12. Horizontal reuse refers to the use of an asset across several distinct domains or different product lines | True

I.

1. Which of the following is true about buffered message system? | Buffered message system is easy to debug

2. The below image is a snapshot of which architecture styles following? | Repository architecture

3. When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC Architecture

4. Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

5. Which of the following is an Open-Close principle’s implication? | Separate interface and implementation

6. Design produces architecture that specify products and components in the form of Which of the following? | A detail-level design solution

7. Which of following is one limitation of Client/Server architecture? | Server availability and reliability

8. Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

9. Based on connector’s information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_ | Variable, Environment resource, Method, Message

10. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

11. Which of the following diagram called? | Sequence diagram

12. Polymorphism principles means that\_\_\_\_\_\_\_ | An object can have different appearance/behaviors under different circumstances.

13. Which of the following is NOT the benefit of distributed architecture? | Testability

14. Which of the following is a limitation of Non-Buffered Event-based architecture? | Reliability and overhead ò indirect invocations

15. Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

16. When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level.

17. The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions.

19. Which of the following is a limitation of Layered architecture? | Lower runtime performance

20. Which of the following is a limitation of component architecture? | Adaption of components

21. Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

22. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

25. Which of the following is one of distributed architecture? | Service Oriented architecture

26. User Interface Evaluation does NOT focus on which of following features? | Only the tailor-able of the user interface

27. Which of the following is a PAC architecture benefit? | All of the others

28. State machine diagram is grouped in which of following UML diagram category? | Behavioral Diagrams

29. Sequence diagram are used to support\_\_\_\_ | The logical view

30. Which of the following is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

31. Which of the following is TRUE? | Hardware independence does not imply software independence

32. Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice? | (1): Event (source); (2): Event Listener

33. Repository architecture and Blackboard architecture is categorized into which of following architecture style? | Data-Centered architecture style

34. The following diagram is a description of which architecture style? (---> control flow) | Blackboard architecture

38. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline? | Time Sequence Diagram

39. In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

40. Which of the following is the advantage of broker architecture? | Changeability and extensibility

41. Portability refers to \_\_\_\_ | The level of independence of the system on software and hardware platforms.

42. The acronym SAPCO is used for which of following purpose? | Describing the East to use attribute of user interface

43. Which is the benefit of MVC | Multiple views synchronized with same data model

44. Which of the following statement is TRUE? | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

45. Which diagram is equivalent to a sequence diagram? | Collaboration diagram

46. Which of the following is one of advantages of Component-based architecture? | Productivity for the software development and future software development

47. With a good software design. Which is the benefit we will get? | It helps to coordinate development teams to work together orderly.

49. The outcome of Object Oriented Analysis are \_\_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

25. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style? | Client-side proxy

26. The CRC card method in used to identify the responsiblities of each class | True

27. Which of the following are considered as implementation attributes? | Interoperability, maintainability, prortability, fexibility

28. SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

29. In user interface design step. User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

Which of the following is true about buffered message system? | All of the others

The below image is a snapshot of which architecture styles followuing? | Repository architecture

When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC architecture

which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

which of the following is an Open-Close principle's implication? | Separate interface and implementation

Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

which of the following is one limitation of Client/Server Architecture? | Server availablity and reliability

which of the following is the limitation of Reporsitory Architecture Style? | Data store reliability and availability

Based on connector's information carrier, the connectors in software architecture might be classification into | Variable, Enviroment resource, Method, Message

which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation

which of the following diagram called? | Sequence diagram (User, HomListPage, BookingPage)

Polymorphism principles means that \_\_ | an object can have different appearance/behaviors under different circumstances

which of the followings is NOT the benefit of distributed architecture? | Testability

which of the following is a limitation of Non-buffered Event-based architecture? | Reliability and overhead of indirect invocations

which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level

The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions

The Architectural Decision Procedure includes following steps: (1) Quantify the quality attributes (2): Determine the required quality attributes in requirement analysis (3): Compute the weighed sum. Which is the correct order of these steps? | 2=>1=>3

which of the following is a limitation of Layered architecture? | Lower runtime performance

which of the following is a limitation of component architecture? | Adaption of components

which of the following is the limitation of message-driven architecture? | Capacity limit of message queue

which of the following is NOT an architecture sytle in hierarchical architecture? | Client-Server architecture

which of the following statement is TRUE? | THe usability of a user interface is enhanced by consistency and integration

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

which of the followings is one of distributed architecture? | Service oriented architecture

User Interface Evaluation does NOT focus on which of the following features? | Only the tailor-able of the user interface

which of the following is a PAC architecture benefit? | All of the others

State machine diagram is grouped in which of following UML diagram category? | Bahavioral diagrams

Sequence diagrams are used to support \_\_ | The logical view

which of the followings is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

Which of the following is TRUE? | Hardware independence does not imply software independence

Below diafram is class diagram of the Event-based architecture style. which of the following is the best choice? | (1): Event; (2): Event Listener

Repository architecture and Blackboard architecture is categorized into which of the following architecture style? | Data-Centered architecture sytle

The following diagram is a description of which architecture style? (--> control flow) | Master-Slave architecture

which of the following is NOT a buffer-based software architecture | Peer-to-Peer Connection

(1) is better because of which following? | Easy expansion

Compared with Serveice Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following? | Allows stateful service

In UML 2.0, which diagram describes time sequence of message passed between objects in timeline? | Sequence diagram

In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

which of the following is the advantage of broker architecture? | Changeability and extensibility

Portability refers to \_\_ | The level of independence of the system on software and hardware platforms

The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

Which is the benefit of MVC? | Multiple views synchronized with same data model

which of the following statement is TRUE? | One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

Which diagram is equivalent to a sequence diagram? | Collaboration diagram

which of the following is one of advantages of Component-based architecture? | Productivity fot the software development and future software development

With a good software design, Which is the benefit we will get? | It helps to coordinate development teams to work together orderly

which of the following is TRUE fot implementing the separation of the user interface from the logic of software system? | The same logic can be accessed by different kinds of user interfaces

The outcome of Object Oriented Analysis stage are \_\_ | Requirement Specification, Initial logic structure of the system

The following image is an example of (Database, Extractor, Sorter, Splitter...) | Pipe-and-Filter architecture

Which of the following is a typical design domain of the MVC architecture? | Web server site application

Interoperability refers to \_\_ | The universal accessbility and the ability to exchange data with internal components and the outside world

The following diagram is a description of which architecture style? (xanh, tim, do) | MVC architecture

Which is the incorrect guide for mapping runtime elements? | If an element is re-entrant it can not be implemented by a thread or a process

Choose the incorrect statement | Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

Software Design Description includes \_ | The software architecture and the detailed design of the system.

Choose the incorrect statement | Inheritance relation is another name of composition relation

Which of the followings is a style of distributed architecture? | Master-Slave architecture

Which of the following statements is TRUE? | One of benefits of Pipe and Filter architecture is Concurrency

Which of the following statement is TRUE? | Three-tier is a variant of Client-Server architecture

Objected-Oriented principles includes \_ | Inheritance, Encapsulation, Polymorphism

Which of the followings are categorized into Hierarchical architecture styles? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

In UML, a composition relationship represented \_\_ | Using a solid diamond arrowhead

Choose the correct statement | Time to market attribute refers to the time it takes from requirement analysis to the date product is released

Which of the following is the benefit of layered architecture? | Incremental software development based on increasing levels of abstraction

Which of the following is a benefit of asynchronous architecture? | Loose coupling of modules

Choose the correct statement | Class diagram shows how classes are statically related, but not how class dynamically interact with each other.

Which of the following is NOT a step in Object oriented design process? | Design of a UML Use-case diagram

The below image is a snapshot of which architecture styles following? (4 hcn cau truc giong nhau, ) | PAC architecture

Rule-based knowledge is installed in the \_\_ component of the blackboard architecture | Control

In an architecture styles, which of the following is the components defining how elements can be integrated to form the system | Constraints

The below image is a snapshot of which architecture style belowing? (View, A View 1, A View 2, ..) | MVC architecture

‘A’ character in “SAPCO” is which of the following? | Aesthetic

Which is the following diagram called? (customer, shipping, payment) | Package Diagram

Which of the followings is a style of distributed architecture? | Multi-tier architecture

Choose the correct statement | Runtime connector in software runtime structure inherit attributes from source code structure without any extension

In an architecture styles, which of the following is the components that perform functions required by a system? | Elements

What is called in CRC modeling a class that is involved in accomplishing the reponsibility of a class? | Collaborator

Choose the correct statement | Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

Which of the following is Open-Close principle in Object-Oriented Paradigm? | Open to extension, Close to modification

Choose the correct Software Architecture Design guideline | Think of what to do before thinking of how to do it

Which is the following diagram called? (proposed) | State machine diagram

The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

# �A� character in �SAPCO� is which of the following? | Aesthetic

# (1) is better because of which following? | Easy expansion

The \_\_\_\_\_\_\_\_\_\_ pattern has two primary criteria for applicability: | Singleton

# A Component is NOT\_\_\_. Which is the best choice?| A whole system which could be executed independent

# A UML diagram must provide a complete view of the entire software system. | True.

# A \_\_\_ is a collection of computational and storage devices connected through a communications network. | Distributed system

# A component architecture can be derived from use case analysis and business concept diagram. | True.

# A component is a class or an object. | False.

# A core type component does not depend on any other classes. | True.

# A customizable user interface is not a good style since it will confuse users. | False.

# A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals. | True.

# A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False.

# A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | False.

# ADL can produce target code. | True.

# ADL is a programming language. | False.

# ADL is used only for software architecture specification. | False.

# ATAM is which of the following methods? | Architecture Trade-off Analysis Method

# Abstraction via inheritance is one effective way to achieve the open-close principle | True

# According to IEEE Standard 1471, The system architecture is \_\_\_\_ | C. A collection of components organized to accomplish a specific function or set of functions.

# According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be? | B.Method

# According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | B. Blocking

# Activity diagrams are used to support \_\_\_\_ | C. The process view

# Activity diagrams are used to support the process view. | True.

# Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

# An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True.

# An event can be either visible or invisible | True

# An interaction overview diagram is based on all low-level interaction diagrams. | True.

# Architects use\_\_\_in sofware construction to divide and conquer the complexities of a problem domain to solve the problem.| Various design strategies

# Architecture design is about choosing the right single architecture style for a project | F

# Architecture design is about choosing the right single architecture style for a project | False

# Architecture styles contribute to software quality attributes | True

# Architecture styles contribute to software quality attributes. | True

# Asynchronous message invocation can be expressed in sequence diagrams. | True.

# At software developement time, the software element are| source code modules or files which...

# At sofware deployment time, the sofware element are\_\_\_| The executable version

# Availability refers to \_\_\_\_ | D. The ability of a system to be available 24x7

# Based on connector's information carrier, the connectors in software architecture might be classification into | Variable, Enviroment resource, Method, Message

# Batch Sequence Architecture| Batch Sequence Architecture

# Batch sequential architecture is general more time efficient then pipe and filter | False

# Batch sequential architecture is generally more time efficient than pipe and filter.| False.

# Below diafram is class diagram of the Event-based architecture style. which of the following is the best choice? | (1): Event; (2): Event Listener

# Blackboard architecture is difficult to debug and test. | True

# Blackboard architecture is difficult to debug. | True.

# Both Sequential and Parallel processing are supported by| Pipe and Filter Architecture

# CCM is a target technology for component technology. | True.

# COBOL is widely used to implement batch sequential | True

# COBOL is widely used to implement batch sequential. | True.

# CORBA is an example of the broker architecture. | True.

# Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter. | False.

# Choose the correct Software Architecture Design guideline | Think of what to do before thinking of how to do it

# Choose the correct statement | Class diagram shows how classes are statically related, but not how class dynamically interact with each other.

# Choose the correct statement | Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

# Choose the correct statement | Runtime connector in software runtime structure inherit attributes from source code structure without any extension

# Choose the correct statement | Time to market attribute refers to the time it takes from requirement analysis to the date product is released

# Choose the incorrect statement | Inheritance relation is another name of composition relation

# Choose the incorrect statement | Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

# Choose the incorrect statement. | C. UML diagram could be group into 3 major categories: Structural, Behavioral and Deployment.

# Client-server architecture in general is more scalable than the multi-tier model | False

# Client-server architecture in general is more scalable than the multi-tier model. | False.

# Client-server architecture is general is better availability than the multi-tier model | False (correct)

# Compared with Serveice Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following? | Allows stateful service

# Component deployment is a good practice in a layered architecture | True

# Component deployment is a good practice in a layered architecture. | True (correct)

# Component deployment is a good practice in a layered architecture. | True.

# Component diagrams are based on object diagrams. | True.

# Component diagrams are used to support the development view. | True.

# Composite structure diagrams are based on object diagrams. | True.

# Concurrency control activity is part of the process view.

# Conditional branching can be represented in sequence diagrams. | True.

# Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.|False.

# Core type classes can be recognized as a new component | True

# Core type classes can be recognized as a new component. | True.

# Coupling in message-driven architecture is even looser than in event-driven architecture | True

# Deployment decisions should be reflected in early architecture designs. | False.

# Deployment diagrams are used to support the physical view. | True.

# Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

# Design-for-commonality anticipates variation without compromising commonality.|False.

# Different architecture structures have different element and connector types. | True.

# Divide-and-conquer is not a suitable methodology for architecture design. | False.

# Domain analysis identifies the various common features in a domain and their differences. | True.

# Each component may have its provided ports and required ports from other components.|True

# Each component must have its provided ports and required ports.| False.

# Element and connector attributes are derived from the project requirements. | True.

# Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | C. Component-based > Object-oriented > Functional-oriented > Service-based

# Event-based architecture is a good candidate for interactive systems with graphic user interface.| True.

# Event-based architecture is appropriate for a compiler in an IDE design | False

# Event-based architecture is difficult to test and debug | True (correct)

# Event-based architecture style is a buffered architecture | False

# FPT�s University CMS is an example of repository design | True

# Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

# For a large-scale software project, \_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness | heterogeneous architecture

# For software project resource allocation, the software element are \_\_\_\_ | A. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

# For sofware project resource allocation, the sofware element are..| Specific manipulation

# Google Map is an example of services in SOA architecture | True

# Hierarchical architecture can also be applied in any object-oriented software design. | True.

# Hierarchical architecture is a procedure-oriented design paradigm only. | False.

# Hierarchical architecture is a procedure-oriented design paradigm only.False

# Horizontal reuse refers to the use of an asset across several distinct domains or different product line. | True.

# How many different way are there to move data in P/F? | 3

# Implicit notication is often used in the MVC architecture | True

# Implicit notification is often used in blackboard architecture. | True

# Implicit notification is often used in blackboard architecture. | True.

# Implicit notification is often used in the MVC architecture. | True

# Implicit notification is often used in the MVC architecture.| True

# In Blackboard architecture, a controller takes which role? | B. It takes a bootstrap role and overall supervision control.

# In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | E. Skeleton

# In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture Style? | Client-side proxy

# In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

# In Client/Server architecture | All of the others

# In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

# In Fat-client type, the client includes which of the following processing | Presentation processing, Business Logic Processing

# In Interaction oriented software architecture, \_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice?| The data module

# In Layered architecture, the interface of each layer encapsulates \_\_ | A. All detailed service implementations in the current layer and the interfaces of the layers below.

# In MVC, said that it is easy to plug-in new or change interface views mean thich of following? | it allows updating...

# In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

# In Non-buffered Event-based architecture, how many partitions a system could be separated into? | A. 2 partitions

# In SOA architecture, Interperability means what? | Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

# In Thin-Client type, the server includes which of the following processing. | B. Data Storage Processing, Business Logic Processing

# In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

# In UML 2.0 Which of the following is true? | Sequence diagram both concurrencies and loops can be specified

# In UML 2.0, Which of the following is TRUE? | C. Sequence Diagram describes time sequence of messages passed between objects in timeline.

# In UML 2.0, which diagram describes time sequence of message passed between objects in timeline? | Sequence diagram

# In UML, a composition relationship represented \_\_ | Using a solid diamond arrowhead

# In User Interface design step, Friendliness factor consideration means what? | C. The behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

# In User Interface design step, Information representation factor consideration means what?|A. Designers must take into account the needs, experiences, and capabilities of the system users.

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression? | An object named �John� whose class is �Doctor�

# In an architecture styles, which of the following is the components defining how elements can be integrated to form the system | Constraints

# In an architecture styles, which of the following is the components that perform functions required by a system? | Elements

# In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice? | C. The view presentation module

# In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice? | B. The data module

# In interaction oriented software architecture,\_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice?| The view presentation module

# In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module below? | D. Controller module

# In user interface design step.User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

# In user interface evaluation step, we should focus on what? | The usability of the interface

# In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output data? | C. Batch sequential architecture

# Interoperability refers to \_\_ | The universal accessbility and the ability to exchange data with internal components and the outside world

# It is beneficial to integrate architecture design with the process of requirements analysis.|True.

# Java can be used to implement a pipe and filter design system. | True

# Java can be used to implement a pipe and filter design system. | True.

# Loose coupling is used between repository agents. | True.

# Main- subroutine architecture can also be applied in any object-oriented software design | True

# Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style | True

# Modifiability and expandability are essentially the same quality attribute. | False.

# Multiple event targets can register with same event source. | True

# Object-oriented design is a design methodology | True

# Object-oriented design is a design methodology. | True

# Objected-Oriented principles includes \_ | Inheritance, Encapsulation, Polymorphism

# Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False

# PAC agents are loosely couple. | True

# Pipe-and-Filter is one of the architecture styles | True

# Polymorphism implies \_\_\_\_\_ | A. The invocation of a method is determined at run time

# Polymorphism implies the following | the same operation might be have differently at run time

# Polymorphism implies the following: | All of the other

# Polymorphism principles means that \_\_ | an object can have different appearance/behaviors under different circumstances

# Portability refers to \_\_ | The level of independence of the system on software and hardware platforms

# Portability refers to \_\_\_\_ | A. The ability to modify the system and extend it conveniently.

# Product line processes are a way to institutionalize systematic reuse.| False.

# Prototyping can be used to support UI design. | True.

# Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute? | C. Efficiency D. Productivity E. Functionality

# Quality attributes could be categorized into 3 groups which are? | A. Implementation attributes, Runtime attributes, Business attributes

# RMI is an example of the broker architecture | True

# RPG is widely used to implement batch sequential | True�.

# Repository architecture and Blackboard architecture is categorized into which of the following architecture style? | Data-Centered architecture sytle

# Repository architecture design could NOT be object-oriented design | True

# Repository architecture design must also be object-oriented design. | False.

# Reusable assets are limited to code components. | False.

# Reuse is not an end in itself but a means to an end. | True.

# Rule-based knowledge is installed in the \_\_ component of the blackboard architecture | Control

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.|False.

# SAAM relies on scenarios to test an architecture design | True

# SAAM relies on use cases to test an architecture design. | False.

# SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

# Security belongs to which of the following quality attributes group? | C. Runtime attributes

# Select correct statement | Concurrency is not supported in batch-sequential architecture

# Select correct statement about inheritance | Class can inheritances more than one interface

# Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

# Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

# Select correct statement | None of the others

# Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

# Select correct statement(s) | All of the others

# Select correct statement(s): Statement 1:Good software architectural designs are based on the recursive application of the"divide-and-conquer" methodology. Statement 2: Good software architectural designs are based on the recursive application of refinement of abstractions. | Statement 1 is correct

# Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

# Select incorrect statement about module ininteraction-oriented software architecture | The dat are pository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data in itialization and system configuration actions.

# Select incorrect statement | .Data repository architecture is suitable for artificial intelligent systems and expert systems.

# Select incorrect statement | Agents in the repository architecture normally do not talk with each other directly, except though datastore.

# Select incorrect statement | JDBC is XML based

# Select the benefits of nonbuffered event-based implicit invocation architecture | All of the others

# Select the disadvantages of direct manipulation | None of the others

# Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners & Event sources

# Sequence diagrams are used to support \_\_ | The logical view

# Sequential flow control can be predetermined in batch sequential. | True.

# Sequential flow control can be predetermined in pipe and filter. | True.

# Service-oriented architecture is stateless, while component-based architecture is not.|True.

# Software Design Description includes \_ | The software architecture and the detailed design of the system.

# Software architecture = software architecture styles. | False.

# Software architecture = software architecture styles. | False

# Software architecture design involves many software design methodologies and architecture styles. | True.

# Software architecture design is based on the software requirement specification | True

# Software architecture design is based on the software requirement specification. | True

# Software architecture is a static software structure description. | False

# Software architecture is concerned only with functional requirements. | False.

# Software components do not need adaption. | False.

# Software quality attributes must satisfy functional requirements | False

# Software quality attributes must satisfy functional requirements. | False

# State machine diagram is grouped in which of following UML diagram category? | Bahavioral diagrams

# Successive sets of data, where data and operations on it are independent of each other. | data flow

# System and network configuration decisions are part of the physical view. | True.

# The "Look and Feel" feature is well supported in the MVC architecture.| True

# The "Look and Feel" feature is well supported in the MVC architecture.| True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.| True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.|True

# The Architectural Decision Procedure includes following steps: (1) Quantify the quality attributes (2): Determine the required quality attributes in requirement analysis (3): Compute the weighed sum. Which is the correct order of these steps? | 2=>1=>3

# The CRC card method in used to identify the responsibilities of each class | True

# The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.|True.

# The MVC models suggest the separation of the user interface from the logic of the software system? | True.

# The PAC architecture is a hierarchically structured software architecture | True

# The PAC architecture is a hierarchically structured software architecture. |True

# The PAC architecture is a hierarchically structured software architecture.| True

# The Yellow Page of web service is an example of repository design. | True.

# The abstraction and presentation components in a PAC agent do not talk to each other directly|True

# The acronym SAPCO describes | The satisfactory principles of user interfaces

# The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

# The below image is a snapshot of which architecture style belowing? (View, A View 1, A View 2, ..) | MVC architecture

# The below image is a snapshot of which architecture styles following? (4 hcn cau truc giong nhau, ) | PAC architecture

# The below image is a snapshot of which architecture styles followuing? | Repository architecture

# The benefit of the broker architecture | All of the others

# The callback method is typically used in a main-subroutine architecture. | False.

# The constituent elements of software architecture are software elements and their connections. | False

# The constituent elements of software architecture are software elements and their connections. | False

# The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions

# The constituent parts the architecture of a system are: | Its components, connectors, and the rules governing their interactions.

# The control flow in batch sequential is implicit. | True

# The control flow in batch sequential is implicit. | True.

# The control flow in pipe and filter is explicit. | True

# The control flow in pipe and filter is explicit. | True.

# The data in the Abstraction component of a PAC agent is passive. | True

# The data in the Abstraction component of a PAC agent is passive.| True

# The data in the Model component of the MVC architecture is active | True

# The data in the Model component of the MVC architecture is active| True

# The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. | passive/active

# The facts or hypotheses are stored in the knowledge source component of a blackboard system.|False.

# The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.|Blackboard

# The following diagram is a description of which architecture style? (xanh, tim, do) | MVC architecture

# The following diagram is a description of which architecture style? (--> control flow) | Master-Slave architecture

# The following diagram is a description of which architecture style?| 3 angent -> data source. DAP AN: REPOSITORY

# The following image is an example of (Database, Extractor, Sorter, Splitter...) | Pipe-and-Filter architecture

# The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

# The following image is an example of one of architecture style below. Which is the best choice?|Process-Control architecture

# The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach. | True.

# The image below is an example of static style of user interce�slaout? Which which is the correct answer? | It�s 1D layout

# The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?| all of the others

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True.

# The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?| 3 major partitions � Data module, Control module, Presentation Module

# The key point of the interaction oriented software architecture is \_\_\_ Which is the best answer| In the separation of user interaction from data abstraction and business data processing

# The look and feel of a user interface can be defined by using engineering rules. | False.

# The master-slave architecture is a specialized form of main-subroutine architecture | True

# The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ | composite diagram

# The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions:\_\_\_\_\_\_\_and. | evene sources/event receivers

# The outcome of Object Oriented Analysis stage are \_\_ | Requirement Specification, Initial logic structure of the system

# The provided interface ports may be in synchronous or asynchronous modes. | True

# The purpose of the software design phase is to produce a software requirement specification. | False

# The purpose of the software design phase is to product a software requirement specification|False

# The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

# The software sub modules and their interfaces are described in the logical view. | True.

# The testing of synchronous architecture is more straightforward than asynchronous architecture.|True

# The usability of a user interface is enhanced by consistency and integration. | True.

# The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. | Master-slave architecture

# There are data sharing (shared data) among all subsystems in a data flow system. | False.

# There are two categories of data-centered architecture:\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | blackboard & repository

# There is always an architecture design that can meet all requirements. | False.

# There is always only one architecture design that can meet all requirements | False

# There is data sharing between all layers in a layered architecture. | False.

# There is tight dependency of agents on the data store in the repository architecture. | True.

# Three Object Oriented Principles are which of following? | D. Encapsulation, Inheritance, Polymorphism

# Three-tier and Client-Server architecture| Three-tier and Client-Server architecture

# To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-of in this case? | Tradeoff between scalability and performance

# Traffic control agents in a city traffic management system may be designed using PAC. | True

# Traffic control agents in a city traffic management system may be designed using PAC.| True

# Two modules in a data flow system can change their order without any constrains. | False

# Two modules in a data flow system can change their order without any constraints. | False.

# Typical OO languages include the following: | All of the others

# UML diagrams are \_\_\_\_ which are used for system analysis and design | C. Tools

# UML diagrams are used for system analysis and design | True

# Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.| True

# User Interface Evaluation does NOT focus on which of the following features? | Only the tailor-able of the user interface

# User interface refers to static components and their layout, not dynamically displayed information. | False.

# Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. | Hierarchical

# Web service is an example of SOA architecture. | True.

# Web service is an example of hierarchy architecture design. | True.

# What is a class involved in accomplishing the responsibility of a class called in CRC modeling?|Collaboration

# What is an arechitecture design space| dai nhat thi chon

# What is called in CRC modeling a class that is involved in accomplishing the reponsibility of a class? | Collaborator

# What is the CORRECT statement about virtual repository? | D. A virtual repository is built up on the top of multiple physical repository

# What is the INCORRECT statement about distributed repository? | B. All data are centralized

# What of the following statement about the characteristic in Service-oriented and Broker are Correct?| Both are hard

# When do we use pipe & filter architecture? | All of the others

# When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level

# When you apply Layered Architechture style into system architecture design , why run time performance of the system might be slow| A client request or a response to client must go through potentially several layrers.

# When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC architecture

# Which architecture style supports loose coupling between legacy systems and modern systems for integration development? | A. Buffered message-based architecture

# Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

# Which are the different between component-oriented design and object-oriented design? | All of the others

# Which diagram is equivalent to a sequence diagram? | Collaboration diagram

# Which is NOT a software structure that software architecture can be described with? | C. State structure

# Which is NOT a structure which can be described in a software architecture? | Operation structure

# Which is a deployable software package that can provide services to its clients? | Component

# Which is dynamic diagram? | Use-case diagram

# Which is not a structure which can be described in a sofware architecture?| Dynamic structure

# Which is not component in interaction-oriented software architecture? | Data repository

# Which is not correct way to use a component? | lookup in EJB

# Which is the CORRECT statement about a pipe? | B. A Pipe moves a data stream from one filter to another.

# Which is the benefit of MVC? | Multiple views synchronized with same data model

# Which is the correct order in Object oriented design process? | Identify => Build=>Construct=>Class overview=>Class Detail

# Which is the correct order of these steps? | Determine� => Quantify� => Compute�

# Which is the following diagram called? (customer, shipping, payment) | Package Diagram

# Which is the following diagram called? (proposed) | State machine diagram

# Which is the following diagram called?| a.Class diagram b.Package diagram c.Component diagram d.Deployment diagram e.Object diagram

# Which is the incorrect guide for mapping runtime elements? | If an element is re-entrant it can not be implemented by a thread or a process

# Which is the most appropriate architecture style to develop a radar system like below? | PAC

# Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

# Which is the purpose of Main-Subroutine Architecture?| To reuse the subroutines

# Which is the reason when you apply component-based architecture, overall system reliability will be increased?| you could increase the reliability....

# Which is the reason why software reuse is critical? | A. All of the others

# Which is the statement you can describe about MVC architecture style? MVC is now very popular

# Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate response? | D. Buffered message-based architecture

# Which kind of UML diagram can be expressed asynchronous message invocation? | sequence diagram

# Which kind of class is not used in ananalysis class diagram? | Concrete class

# Which of below description is a benefit of PAC architecture style?| Complete separation

# Which of following is Not True about Detailed design step?| We will describe...

# Which of following software system cannot be designed using PAC? | Compiler

# Which of the design below is better| Co 3 draw o duoi

# Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

# Which of the following are PAC architecture's benefits? | B. All of the others

# Which of the following are benefits of Non-buffered Event Based architecture| Framework availabity ,Reusablity of components, Possibility of parallel execution

# Which of the following are benefits of object oriented design? | All of the others

# Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

# Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usabilty

# Which of the following are considered as implementation attributes? | Interoperability, maintainability, portability, flexibility

# Which of the following are not benefits of pipe and filter? | Interactive.

# Which of the following attribute related to error tolerance and avaibility?| Reliability

# Which of the following attribute related to hardware independence and installability?| Portability

# Which of the following attribute related to time and space?| Efficiency

# Which of the following diagram called? | Sequence diagram (User, HomListPage, BookingPage)

# Which of the following diagram is NOT an structural diagram | Sequence diagram

# Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation

# Which of the following is NOT TRUE about Architectural design step| Wel will describe the interconnection the components which visible to stakeholders

# Which of the following is NOT a benefit of Component architecture | Performance

# Which of the following is NOT a buffer-based software architecture | Peer-to-Peer Connection

# Which of the following is NOT a step in Object oriented design process? | Design of a UML Use-case diagram

# Which of the following is NOT a typical style of distributed architecture? | MVC

# Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture C. Client-Server architecture

# Which of the following is NOT buffer-based? | Callback

# Which of the following is NOT the benefit of Broker architecture style? | A. Easy in testing.

# Which of the following is NOT the benefit of Broker architecture style? | Easy in testing

# Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

# Which of the following is NOT the benefit of the MVC architecture? | Supports multiple in dependent agents

# Which of the following is Open-Close principle in Object-Oriented Paradigm? | Open to extension, Close to modification

# Which of the following is TRUE about buffered message system? | B. All of the others

# Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

# Which of the following is TRUE fot implementing the separation of the user interface from the logic of software system? | The same logic can be accessed by different kinds of user interfaces

# Which of the following is TRUE? | Hardware independence does not imply software independence

# Which of the following is a INCORRECT description about component in Component-based architecture? | C. A Component is NOT a modular.

# Which of the following is a PAC architecture benefit? | All of the others

# Which of the following is a benefit of asynchronous architecture? | Loose coupling of modules

# Which of the following is a benefit of component-based architecture? | C. Independency and flexible connectivity of components

# Which of the following is a disadvantage of hierarchical architecture? | Overhead.

# Which of the following is a feature of object oriented methodology? | Inheritance

# Which of the following is a limitation of Layered architecture? | D. Lower runtime performance

# Which of the following is a limitation of Layered architecture? | Lower runtime performance

# Which of the following is a limitation of Non-buffered Event-based architecture? | Reliability and overhead of indirect invocations

# Which of the following is a limitation of component architecture? | Adaption of components

# Which of the following is a typical design domain for the MVC architecture? | Web server site application

# Which of the following is a typical design domain of blackboard architecture? | AI system.

# Which of the following is a typical design domain of the MVC architecture? | Web server site application

# Which of the following is an Open-Close principle's implication? | A. Separate interface and implementation

# Which of the following is an Open-Close principle's implication? | Separate interface and implementation

# Which of the following is an architecture design evaluation methodology? | SAAM

# Which of the following is buffer-based software architecture? | A. Peer-to-Peer connection

# Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

# Which of the following is not a benefit of hierarchical architecture? | Concurrency.

# Which of the following is not a benefit of repository architecture? | Concurrency.

# Which of the following is not a benefit of the MVC architecture? | Support multiple independent agents

# Which of the following is not a benefit of the MVC architecture?| Support multiple independent agents

# Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

# Which of the following is not an open-close principles�s implication? | Feel free to change software code.

# Which of the following is not considered as event-driven? | Callback

# Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

# Which of the following is one limitation of Client/Server Architecture? | Server availablity and reliability

# Which of the following is one of advantages of Component-based architecture? | Productivity fot the software development and future software development

# Which of the following is open-close principle? | Open to extension, close to modification

# Which of the following is the INCORRECT statement about passive filter? | B. It lets connected pipes to push data in and pull data out.

# Which of the following is the advantage of broker architecture? | Changeability and extensibility

# Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

# Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

# Which of the following is the benefit of layered architecture? | Incremental software development based on increasing levels of abstraction

# Which of the following is the correct statement about Component-based architecture?| - it divides the problem into sub-problem each associated with component partitions

# Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

# Which of the following is the limitation of Reporsitory Architecture Style? | Data store reliability and availability

# Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue

# Which of the following is the main motivation of Component-based architecture?| Component reusability

# Which of the following is true about buffered message system? | All of the others

# Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

# Which of the following is true? | All of the others

# Which of the following is true? | All of the others (web services are examples of service-oriendted architecture, the application domain of process control style includes real-time systems, web application are examples of client-server architecture)

# Which of the following is typical design domain for the MVC architecture? | Web client site application

# Which of the following is used to evaluate architecture design? | A. All of the others

# Which of the following is used to evaluate architecture designs? | ALL

# Which of the following notations is not used to support the logical view? | Deployment diagram

# Which of the following notations is used to support the logical view? | All of the others

# Which of the following notations is used to support the physical view? | Non of the others

# Which of the following statement is TRUE? | D. The usability of a user interface is reduced by consistency and integration.

# Which of the following statement is TRUE? | One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

# Which of the following statement is TRUE? | THe usability of a user interface is enhanced by consistency and integration

# Which of the following statement is TRUE? | Three-tier is a variant of Client-Server architecture

# Which of the following statement is a correct description about the job of an architecture designer?| Exhaust all possible solutions, pick up the best one

# Which of the following statements is TRUE? | One of benefits of Pipe and Filter architecture is Concurrency

# Which of the following statements is TRUE? | The usability of a user interface is enhanced by consistency and integration.

# Which of the following structures describe the dynamic properties of software architecture?|Software runtime structure

# Which of the following structures describe the static properties of software architecture?|Software code structure.

# Which of the followings are categorized into Hierarchical architecture styles? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

# Which of the followings are not benefits of batch sequential? | Interactive.

# Which of the followings is NOT the benefit of distributed architecture? | Testability

# Which of the followings is NOT the benefit of hierarchical architecture? | concurrency

# Which of the followings is NOT the benefit of repository architecture? | Loose coupling

# Which of the followings is a style of distributed architecture? | Master-Slave architecture

# Which of the followings is a style of distributed architecture? | Multi-tier architecture

# Which of the followings is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

# Which of the followings is one of distributed architecture? | Service oriented architecture

# Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

# Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

# Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

# Which the reasoning method that starts with the initial state of data and proceeds towards a goal| Forward Reasoning

# Which tool can be used to describe an architecture style? | "4+1" view model

# Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc. | Logical view

# Which view in "4+1" view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc.? | A. Logical view

# With a good software design, Which is the benefit we will get? | It helps to coordinate development teams to work together orderly

# You will apply the batch sequential architecture when? | A. Developing a system where intermediate file is a sequential access file.

# You will apply the batch sequential architecture when?| Developing a system where intermediate file is a sequential access fileWhich is NOT the way to make the data flow in Pipe and Filter architecture| Leave data in a center repository

# \_\_\_\_\_\_\_\_\_ is a modular(cohesive), deployable(portable), replaceable(plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

# \_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world. | Interoprrability

# \_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures. | Client-server model

# what of following characteristic do MVC and PAC both have?| Support for developing

(1): Quantify the quality attributes

(2): Determine the re required quality attributes in requirement analysis

(3): Compute the weighted sum

1 Which are the different between component-oriented design and object-oriented design? | | d. All of other

1. The constituent elements of software architecture are software elements and their connections. | False

1. Which of the following are benefits of OO design? | All of the above

1. Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

1. Which of the following is not one of the benefits of distributed architecture? | True Supports multiple views

1. Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

1. Which of the following is true about buffered message system? | Buffered message system is easy to debug

1. Which of the following is used to evaluate architecture designs? | ALL

1. Which of the following notations is used to support the logical view? | All of the above

1. Which of the following structures describe the static properties of software architecture? | Software (code,deployment,management) structure

1.A user interface is mainly for accepting inputs, conducting computations, and displaying outputs | False

1.A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.| Fasle

1.Activity diagrams are used to support�� | The process view

1.Activity diagrams are used to support | The process view

1.Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecure styles? (�>� is better) | Client-Server > Broker > Service-oriented

1.For what project resource allocation, the software element are \_\_\_\_ | Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

1.The constituent elements of software architecture are software elements and their connections | False

1.The constituent elements of software architecture are software elements and their connections| False

1.The constituent parts of the architecture of a system are� | Its components, connectors, and the rules governing their interactions

1.The constituent parts the architecture of a system are:| a. Its components, connectors, and the rules governing their interactions

1.Which of the following are benefits of OO design? | All

1.Which of the following are not benefits of pipe and filter? | Interactive

1.Which of the following are not benefits of pipe and filter?| Interactive.

1.Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

1.Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing (correct)

1.Which of the following is not a benefit of component architecture? | Concurrency

1.Which of the following is not a benefit of hierarchical architecture? | Concurrency

1.Which of the following is not a benefit of hierarchical architecture?| Concurrency.

1.Which of the following is not a benefit of repository architecture? | Concurrency

1.Which of the following is not a benefit of repository architecture?| Concurrency.

1.Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

1.Which of the following is not one of the benefits of distributed architecture?

1.Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

1.Which of the following is used to evaluate architecture designs? | ALL

1.Which of the following is used to evaluate architecture designs?| d. ALL

1.Which of the following notations is used to support the logical view? | All

10 Which is dynamic diagram? | Use-case [Activity,State-machine,sequence,interractin,communication, time]

10. Blackboard architecture is difficult to debug. | True

10. Prototyping can be used to support UI design, | True

10. Sequential flow control can be predetermined in batch sequential. | True

10. Software architecture design is based on the software requirement specification. | True

10. The PAC architecture is a hierarchically structured software archi- tecture. | True

10. The facts or hypotheses are stored in the knowledge source com- ponent of a blackboard system. | False

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

10. The master-slave architecture is a specialized form of main- subroutine architecture. | True

10. The notification of events or messages is different from local or remote method invocation. | True

10. To conform to the open-closed principle the use of global variables should be minimized. | True

10. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

10.Blackboard architecture is difficult to debug | True

10.Blackboard architecture is difficult to debug| True

10.Deployment diagrams are used to support the physical view.| True.

10.Prototyping can be used to support UI design | True

10.RPG is widely used to implement batch sequential | True�.

10.RPG is widely used to implement batch sequential| A- True

10.Reusable assets are limited to code components | False

10.Reusable assets are limited to code components.| False

10.Sequential flow control can be predetermined in batch sequential | rue

10.Sequential flow control can be predetermined in batch sequential.| True.

10.Software architecture design is based on the SRS | True

10.The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.| True

10.The Java programming language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces | True

10.The PAC architecture is a hierarchically structured software architecture | True

10.The constituent parts of the architecture of a system are which of the following? | Its component, connectors, and the rules governing their interactions.

10.The constituent parts of the architecture of a system are which of the following| Its component, connectors, and the rules governing their interactions

10.The facts or hypotheses are stored in the knowledge source component of a blackboard system | False

10.The facts or hypotheses are stored in the knowledge source component of a blackboard system.| False.

10.The interaction operations in the use case diagrams should be included as part of provided interfaces of components | True

10.The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True.

10.The master-slave architecture is a specialized form of main-subroutine architecture | True

10.The master-slave architecture is a specialized form of main-subroutine architecture.| True.

10.The notification of events or messages is different from local or remote method invocation | True

10.To conform to the open-closed principle the use of global variables should be minimized | True

10.UML diagrams are \_\_\_ which are used for system analysis and design | Tools

10.Which is the most appropriate architecture style to develop a radar system like below? | PAC

100.Which of the followings is not typical design domain of the asynchronous architecture| Web server site application

101.Which of the following is not a benefit of the MVC architecture| Supports multiple independent agents

102.Which of the following is a typical design domain for the MVC architecture| Web server site application

103.Which of the following is not one of the benefits of distributed architecture| Supports multiple views

104.Which of the following is not a typical style of distributed architecture| Hierarchical structure

106.Which of the following is not a benefit of component architecture| Performance

108.Which of the following is true about heterogeneous architecture| If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

11 The static and runtime structures are based on the same element types | F

11. ADL is a programming language, | False

11. Multiple consumers can consume a message on a message queue. | True

11. Which of the following diagram called? | Sequence diagram

11.ADL is a programming language| False

11.Component diagrams are used to support the development view.| True.

11.Event-based architecture style is a buffered architecture | False (correct)

11.Event-based architecture style is a buffered architecture| False

11.Multiple consumers can consume a message on a message queue | True

11.Software components do not need adaptation | False

11.Software components do not need adaption.| b. False

11.The below image is a snapshot of which architecture styles following? | Event-based architecture

11.Which diagram equivalent to a sequence diagram? | Collaboration diagram

11.Which diagram equivalent to a sequence diagram| Collaboration diagram

11.Which of the following is NOT TRUE about Architectural design step? | we will specify the internal details of each component

11.Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

11.Which of the following is not one of the benefits of distributed architecture?| Supports multiple views

114.In SOA architecture, Interoperability means what| Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

118.SAPCO stands for which| It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other

12 The static and runtime structures are based on the same connector types | F

12. ADL can produce target code. | True

12. An event can be declared on the fly. | True

12. Polymorphism principles means that\_\_\_\_\_\_\_ | An object can have different appearance/behaviors under different circumstances.

12.ADL can produce target code | True

12.An event can be declared on the fly | True

12.Horizontal reuse refers to the use of an asset across several distinct domains or different product line.| a. True

12.Horizontal reuse refers to the use of an asset across several distinct domains or different product lines | True

12.Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False (correct)

12.Only directly adjacent layers can invoke each other�s methods in a layered architecture.| B- False

12.The software sub modules and their interfaces are described in the logical view.| True.

12.Which of following structures describe the dynamic properties of software architecture? | Software runtime structure.

12.Which of the following is NOT benefit of distributed architecture? | Supports multiple independent argents

12.Which of the following is NOT benefit of distributed architecture| Testability

12.Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

12.Which of the following is not a typical style of distributed architecture?| Hierarchical architecture.

12.Which of the following notations is used to support the process view? | Activity diagram

12.Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one.

121.In user interface evaluation step, we should focus on what| The usability of the interface

129. UML diagrams are \_\_\_\_\_\_\_\_ which are used for system analysis and design| Tools

13 Architectural designs should not consider performance attributes | F

13. ADL is used only for software architecture specification. | False

13. Message-based architecture is appropriate for a compiler in an IDE design. | False

13. Which of the following is NOT the benefit of distributed architecture? | Testability

13.ADL is used only for software architecture specification | False

13.CORBA is a good implementation example of \_\_\_ | Broker Architecture

13.Client-server architecture in general is more scalable than the multi-tier model. | False.

13.Client-server architecture in general is more scalable than the multi-tier model.| False.

13.Concurrency control activity is part of the process view.| True

13.Different architectures structures have different element and connector types | True

13.Java can be used to implement a pipe and filter design system. | True (correct)

13.Java can be used to implement a pipe and filter design system| A- True

13.Message-based architecture is appropriate for a compiler in an IDE design | False

13.Which of the design below is better? | b (h�nh nh�n don gi?n hon)

13.Which of the following architecture is suitable for the embedded system software design? | Pipe and filter architecture

13.Which of the following architecture is suitable for the embedded system software design| Process-Control Architecture

14 JDBC is XML based | F

14. UML diagrams are used for system analysis and design. | True

14. Which of the following is a limitation of Non-Buffered Event-based architecture? | Reliability and overhead � indirect invocations

14.CORBA is an example of the broker architecture. | True.

14.CORBA is an example of the broker architecture.| True.

14.Element and connector attributes are derived from the project | True

14.System and network configuration decisions are part of the physical view.| True.

14.The control flow in batch sequential is implicit. | True (correct)

14.The control flow in batch sequential is implicit.| True

14.UML diagrams are used for system analysis and design | True

14.When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development? | PAC architecture

14.When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development| PAC architecture

14.Which of the following is a principle of Object Oriented methodology? | Polymorphism

14.Which of the following is an architecure design evaluation methodology? | SAAM

15 WSDL is in XML format | T

15. Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC. | True

15. Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

15.Architecture design is about choosing the right single architecture style for a project | False

15.Software architecture is concerned only with functional requirements.| False.

15.The following image is an example of one of architecture style below. Which is the best choice? | Process-Control architecture

15.Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC | True

15.Web service is an example of SOA architecture. | True.

15.Web service is an example of SOA architecture.| True.

15.Which of the following are considered as Implementation attributes? | Interoperability, Maintainability, Portability, Flexibility

15.Which of the following attribute related to time and space? | Efficiency

15.Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message? | Based on connector�s information carrier

15.Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message| Based on connector�s information carrier

16 Web.config is in XML format | T

16. Composite structure diagrams are based on object diagrams. | True

16. When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level.

16.ATAM is which of the following methods? | Architecture Trace-off Analysis Method

16.ATAM is which of the following methods| Architecture Trace-off Analysis Method

16.Composite structure diagrams are based on object diagrams | True

16.Divide and conquer is not a suitable methodology for architecture designs | False

16.In Thin-Client type, the server includes which of the following processing. | Data Storage Processing, Business Logic Processing

16.In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

16.In Thin-client type, the server includes which of the following processing| C- Data storage processing, Business Logic Processing

16.Prototyping can be used to support UI design.| True.

16.Which of the following diagram is a Structural diagram | class diagram

17 SOAP request and response is in XML format | T

17. Component diagrams are based on object diagrams. | True

17. The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions.

17.ADL is a programming language.| False.

17.Component diagrams are based on object diagrams | True

17.Deloyment decisions should be reflected in early architecture | False

17.Implicit notification is often used in blackboard architecture. | True (correct)

17.Implicit notification is often used in blackboard architecture| A- True

17.Repository architecture and Backboard architecture is categorized into which of the following architecture style? | Data-centered architecture style

17.Repository architecture and Backboard architecture is categorized into which of the following architecture style| Data-centered architecture style

17.Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

17.Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents.

18 Which is the most suitable diagram to describe the lifecycle of objects | c. Object diagram

18. A UML diagram must provide a complete view of the entire soft- ware system. | True

18.A UML diagram must provide a complete view of the entire software system | True

18.ADL can produce target code.| True.

18.ATAM is which of the following methods? | Architecture Trade-off Analysis Method

18.The below image is a snapshot of which architecture styles following? | MVC architecture

18.The control flow in pipe and filter is explicit. | True (correct)

18.The control flow in pipe and filter is explicit.| A- True

18.Which of the following is TRUE?| c. Hardware independence does not imply software independence

18.Which of the following is the correct order of Object Oriented design steps? CRC Card Approach -> Construct Interaction Diagram->Build State Chart->Class Design

18.Which of the following notations is used to support the logical view? | All of the above

19 The facts or hypothesis are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system. | Knowledge source

19. A component is a class or an object. | False

19. Which of the following is a limitation of Layered architecture? | Lower runtime performance

19.A component is a class or an object | False

19.ADL is used only for software architecture specification.| False.

19.FPT�s University CMS is an example of repository design| True

19.The architectural Decision Procedure includes following steps:

19.Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle | true

19.Which of the following is TRUE? | Time efficiency is usually the most important quality attribute

19.Which of the following is one limitation of Client/Server architecture| Server availability and reliability

19.Which of the following notations is used to support the physical view? | None of the above

2 There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | blackboard ,repository

2 Which of the following is a disadvantage of hierarchical architecture? | Overhead

2. The below image is a snapshot of which architecture styles following? | Repository architecture

2. Which of the following are features of OO methodology? | Inheritance

2. Which of the following is a typical design domain for the MVC architecture? | Web server site application

2. Which of the following is not a benefit of component architecture? | Performance

2. Which of the following is not a typical style of distributed architecture? | Hierarchical structure

2. Which of the following is true about heterogeneous architecture? | If the general structure ...

2. Which of the following notations is used to support the physical view? | None of the above

2. Which of the following structures describe the dynamic proper- ties of software architecture? | Software runtime structure

2. Which of the followings are not benefits of batch sequential? | Interactive

2. Which of the followings is not typical design domain of the asyn- chronous architecture? | Hierarchical structure

2.Chapter 3 of this book, on �models for software architecture�, has nothing to do with user interfaces described in this chapter. | False

2.Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter.| False

2.Domain analysis identifies the various common features in a domain and their differences | True

2.Domain analysis identifies the various common features in a domain and their differences.| True

2.Event-based architecture is difficult to test and debug | True (correct)

2.Event-based architecture is difficult to test and debug| A- True (correct)

2.Object-oriented design is a design methodology | true

2.Software architecture design involves many software design methodologies and architecture styles | True

2.Software architecture design involves many software design methodologies and architecture styles.|True.

2.What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug.

2.Which of the following is a disadvantage of hierarchical architecture? | Overhead

2.Which of the following is a disadvantage of hierarchical architecture?| Overhead.

2.Which of the following is a typical design domain for the MVC architecture? | Web server site application

2.Which of the following is a typical design domain of blackboard architecture? | AI system

2.Which of the following is a typical design domain of blackboard architecture?| AI system.

2.Which of the following is not a benefit of component architecture? | Performance

2.Which of the following is not a typical style of distributed architecture?

2.Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

2.Which of the following is true about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

2.Which of the following notations is used to support the physical views? | None

2.Which of the followings are not benefits of batch sequential? | Interactive

2.Which of the followings are not benefits of batch sequential?| Interactive.

2.Which of the followings is not typical design domain of the asynchronous architecture | Hierarchical structure

2.With a good software design, which is benefit we will get | It helps to coordinate development teams to work together orderly

2.With a good software design, which is benefit we will get? | It leads the risk in software production more serious

20 Which of the following notations is not used to support the logical view? | Deployment diagram

20. Asynchronous message invocation can be expressed in sequence diagrams. | True

20. Which of the following is a limitation of component architecture? | Adaption of components

20.Activity diagrams are used to support the process view. True

20.Asynchronous message invocation can be expressed in sequence diagrams | True

20.Composite structure diagrams are based on object diagrams.| True.

20.The master-slave architecture is a specialized form of main-subroutine architecture | True

20.The master-slave architecture is a specialized form of main-subroutine architecture|True

20.Which is the statement you can describe about PAC architecture syle? | PAC�s Agents are loose coupling and high independent.

20.Which of the following is Open-Close principle? | open to extension, close to modification

20.Which of the following is limitation of message-driven architecture| Capacity limit of message queue

20.Which of the following is one limitation of Client/Server architecture? | Server availability and reliability

21 Select the outcome of the software design phase: | SDD

21. Conditional branching can be represented in sequence diagrams. | True

21. Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

21.Component diagrams are based on object diagrams.| True.

21.Conditional branching can be represented in sequence diagram | True

21.Deployment diagrams are used to support the physical view | True

21.In Fat-client type, the client includes which of the following processing| A- Presentation processing, Business Logic Processing

21.In Fat-client type, the server includes which of the following processing | Presentation processing, Business Logic Processing

21.When will you apply the Batch Sequence architecture| Developing a system where each sub-system reads related input files and writes output files.

21.Which of the following is NOT the role of architects? | determine market trends or needs evaluation

21.Which of the following is one of distributed architecture? | Service-Oriented architecture

21.Which of the following is the main motivation of Component-based architecture? | Component reusability

22 Which of the following is not considered as event-driven? | Callback

22. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True

22. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

22.A UML diagram must provide a complete view of the entire software system.| True.

22.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

22.At software deployment time, the software element are \_\_ | the executable version of the project modules and files

22.Component diagrams are used to support the development view | True

22.Repository architecture design could NOT be object-oriented design | True

22.Repository architecture design could NOT be object-oriented design| True

22.The key point of the interaction oriented software architectures is \_\_\_ Which is the best answer? | In the separation of user interactions from data abstraction and business data processing.

22.Which of the following attributes which could be observable at runtime| Availability, Security, Performance

22.Which of the following is limitation of message-driven architecture? | Capacity limit of message queue

23 Polymorphism implies the following | the same operation might behave differently at run time

23. An interaction overview diagram is based on all low-level interaction diagrams. | True

23.A component is a class or an object.| False.

23.Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True (correct).

23.Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True

23.An interaction overview diagram is based on all low-level interaction diagrams | True

23.The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture style

23.The purpose of the software analysis phase is to produce a software requirement specification | true //

23.The software submodels and their interfaces are described in the logical view | True

23.When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

23.Which of the following is one of advantages of Component-Based architecture| Productivity for the software development and future software development

24 In Client/Server architecture | All of the others(The server,The business,A client can )

24.Asynchronous message invocation can be expressed in sequence diagrams.| True.

24.Concurrency control activity is part of the processview | True

24.Software Architecture Design is based on the software requirement | true

24.The usability of a user interface is enhanced by consistency and integration| The usability of a user interface is enhanced by consistency and integration

24.Which of the following attributes which could be observable at runtime? | Availability, Security, Performance

24.Which of the following is NOT a benefit of Component architecture | Performance

24.Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| D- Blackboard architecture

24.which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

25 Select correct statement about inheritance | Class can inheritances more than one interface

25, Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

25. Which of the following is one of distributed architecture? | Service Oriented architecture

25.Conditional branching can be represented in sequence diagrams.| True.

25.In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style? | Client-side proxy

25.Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| True

25.System and network configuration decisions are part of the physical view | True

25.The CRC card method is used to identify the responsibilities of each class | true

25.Which is an advantage of Client- Server Architecture? | Reusability of server components.

25.Which of the following is a limitation of Layered architecture| Lower runtime performance

25.Which of the following is one of advantages of Component-Based architecture? | Productivity for the software development and future software development.

26 Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

26, The testing of synchronous architecture is more straightforward than asynchronous architecture. |True

26. User Interface Evaluation does NOT focus on which of following features? | Only the tailor-able of the user interface

26.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.| True.

26.Software architecture is concerned only with functional requirements | False

26.The CRC card method in used to identify the responsiblities of each class | True

26.The testing of synchronous architecture is more straightforward than asynchronous architecture.| True

26.User interface Evaluation does NOT focus on which of following features| Only the tailor �able of the user interface

26.Which of the following is not an Open-Close principle�s implication? | Fell free to change software code

26.Which of the following is the advantage of Broker architecture? | Changeability and extensibility

26.Which of the following statement is TRUE? | The usability of a user interface is enhanced by consistency and integration.

27 Select correct statement about inheritance | Class can inheritances more than one interface

27, Two modules in a data flow system can change their order without any constrains. | False

27. Which of the following is a PAC architecture benefit? | All of the others

27.An interaction overview diagram is based on all low-level interaction diagrams.| True.

27.Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem. | various design strategies

27.Prototyping can be used to support UI design | True

27.Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute| Productivity

27.Two modules in a data flow system can change their order without any constrains.| B- False

27.Which of the following are considered as implementation attributes? | Interoperability, maintainability, prortability, fexibility

27.Which of the following attribute related to error tolerance and availability? | Reliability

27.Which of the following is a limitation of Layered architecture? | Lower runtime performance

28 web services are examples of service-oriented architecture | T

28, Multiple event targets can register with same event source. | True

28. State machine diagram is grouped in which of following UML diagram category? | Behavioral Diagrams

28.ADL is a programming language | False

28.Abstraction via inheritance is one effective way to achieve the open-close principle | true

28.Architecture design is about choosing the right single architecture style for a project| F

28.In user interface evaluation step, we should focus on what? | The usability of the interface

28.Multiple event targets can register with same event source.| A- True

28.SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

28.Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architeture style, and each component can use a different one, this is an example of heterogeneous architecture

28.Which of the following is a limitation of component architecture| Adaption of components

29 the application domain of process control style includes real-time systems | T

29, Hierarchical architecture is a procedure-oriented design paradigm only. | False

29. Sequence diagram are used to support\_\_\_\_ | The logical view

29.ADL can produce tagret code | True

29.Architect design is about choosing the right single architecture style for a project | false

29.Hierarchical architecture is a procedure-oriented design paradigm only.| A- False

29.In user interface design step. User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

29.The acronym SAPCO is used for which of following purpose| Describing the Satisfactory principles of user interface

29.Which is the reason when you apply component-based architecture, overall reliability will be increased? | You could increase the reliability of each individual component in your own way.

3 The benefit of the broker architecture | All [Server component ,Changeability , Simplicity for ...]

3. Activity diagrams are used to support the process view, | True

3. C is a popular OO programming language. | False

3. CCM is a target technology for component technology. | True

3. COBOL is widely used to implement batch sequential. | True

3. Client-server architecture in general is more scalable than the multi-tier model. | False

3. Different architecture structures have different element and con- nector types. | True

3. Modifiability and expandability are essentially the same quality attribute. | False

3. The purpose of the software design phase is to produce a software requirement specification. | False

3. The testing of synchronous architecture is more straightforward than asynchronous architecture. | True

3. Traffic control agents in a city traffic management system may be designed using PAC. | True

3. Web service is an example of hierarchy architecture design. | True

3. When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC Architecture

3.Activity diagrams are used to support the process view | True

3.C is popular OO programming language | False

3.CCM is a target technology for component technology | True

3.CCM is a target technology for component technology.| a. True

3.COBOL is widely used to implement batch sequential | True

3.COBOL is widely used to implement batch sequential.| True.

3.Client-server architecture in general is more scalable than the multi-tier model | False

3.Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain | False

3.Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.| False

3.Different architecture structures have different element and connector types | True

3.Main- subroutine architecture can also be applied in any object-oriented software design | False

3.Main- subroutine architecture can also be applied in any object-oriented software design| B- False

3.Modifiability and expandability are essentially the same quality attribute | False

3.Modifiability and expandability are essentially the same quality attribute.| False

3.Software architecture = software architecture styles.| False.

3.The Yellow Page of web service is an example of repository design.| True.

3.The purpose of software design phase is to produce a software requirement specification | False

3.The testing of synchronous architecture is more straightforward than asynchronous architecture | True

3.Traffic control agents in a city traffic management system may be designed using PAC | True

3.User interface refers to static components and their layout, not dynamically displayed information. | False

3.User interface refers to static components and their layout, not dynamically displayed information.| False

3.Web service is an example of hierarchy architecture design | True

3.Web service is an example of hierarchy architecture design.| True.

3.Which is the following diagram called? | state machine diagram

3.Which of the following is advantage of broker architecture? | Changeability and extensibility

3.Which of the following is advantage of broker architecture| Changeability and extensibility

3.Which of the following statement is TRUE? | Three-tier is the same as MVC architecture.

30 web applications are examples of client-server architecture | T

30. Sequential flow control can be predetermined in pipe and filter. |True

30. Which of the following is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

30.ADL is used only for software architecture specification | False

30.Evaluating the abstraction of software development methodogy, Which is the right order? (�>� is higher) | Service-based > Component-based > Object-oriented > Functional-oriented

30.Sequential flow control can be predetermined in pipe and filter.| A- True

30.Software quality attributes must satisfy functional requirements | false

30.Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design| If the two elements are mapped to a single process, the connector could be mapped to local method invocation

30.Which of the following is a limitation of component architecture? | Adaption of components

31 Which of the following is typical design domain for the MVC architecture | Web server site application

31. Which of the following is TRUE? | Hardware independence does not imply software independence

31.Polymorphism principles mean that�.| An object can have different appearance/behaviors under difference circumstances

31.The acronym SAPCO is used for which of following purpose? | Describing the Easy to use attribute of user interfaces

31.UML diagrams are used for system analysis and design | True

31.What is an architecture design space? | design alternatives that can support functional and non-functional requirement specifications.

31.Which of the following attribute related to hardware independence and installability? | Portability

32 Which kind of class is not used in an analysis class diagram? | Concrete class

32. Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice? | (1): Event (source); (2): Event Listener

32.Availability refers to�| a system�s capability to be available 24/7

32.In SOA architecture, Interoperability means what? | Technically any client or any service can access other services redardless of their Plaform, Technology, Vendors, Language implementations

32.Usecase diagrams are generated in early stages of the SDLC, where areas deployment diagrams are generated in the later stages of the SDLC | True

32.Which is NOT a structure which can be described in a software architecture? | operation structure

32.Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to local method invocation.

32.Which of the following is not an open-close principles�s implication?| b. Feel free to change software code.

33 Which of the following is NOT buffer-based? | Callback

33. Repository architecture and Blackboard architecture is categorized into which of following architecture style? | Data-Centered architecture style

33.Architecture design is about choosing the right single architecture style for a project| b. False

33.Composite structure diagrams are based on object diagrams | True

33.In Client-Server architecure style, ther are follow types | Thin-Client, Fat-Client

33.Polymorphism principles mean that�. | An object can have different appearance/behaviors under difference circumstances

33.Which of the following is NOT an architecture style in hierarchical architecture| Client-Server architecture

33.Which of the following structures describes the dynamic properties of software architecture? | software runtime structure

34 When do we use pipe& filter architecture? | All of the others

34. The following diagram is a description of which architecture style? (---> control flow) | Blackboard architecture

34.Based on connector�s information carrier, the connectors in software architecture might be classification into \_\_ | variable, environment resource, method, message

34.Component diagrams are based on object diagrams | True

34.Software quality attributes must satisfy functional requirements| b. False

34.Which of the following is the limitation of Repository Architecture Style?| Data store reliability availability is a very important issue

34.Which of the followings is a style of distributed architecture? | Service Oriented architecture

35 Which is a deployable software package that can provide services to its clients? | Component

35.A UML diagram must provide a complete view of the entire software system | True

35.At software development time, the software element are \_\_? | Source code modules or files which have been assigned functional and non-functional attributes.

35.Compared with SOA, the advantage of SBA is which of the following? | Allows stateful service

35.High dependency between data structure of data store and its agency| High dependency between data structure of data store and its agency

35.In MVC, said that it is easy to plug-in new or change interface views mean which of the following? | It allows updating the interface views with new technologies without overhang the rest of the system

35.UML diagrams are used for system analysis and design| a. True

36.A component is a class or an object | False

36.The CRC card method in used to identify the responsiblities of each class| True

36.Which of the following is NOT TRUE about Detailed design step? | We will describe user accessible components only in this step.

36.Which of the following is NOT a buffer- based software architecture| Peer-to-peer connection

36.Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

36.Which of the following is NOT the benefit of Multi-tier architecture style? | Load balancing

36\_\_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world | Interoperability

37 Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

37.Asynchronous message invocation can be expressed in sequence diagram | True

37.Polymorphism implies the following: | All of others

37.When you are request to maker a system which can be used be users who work on different sites. It�s required that the system security attribute is high because of its working domain requirement. There are about 100.000 to 500.000 users using the system at the same time. Which architecture will you choose to apply for the system development? | Component-based architecture style

37.Which of the following is NOT a buffer- based software architecture | Peer-to-peer connection

37.Which of the following is a buffer- based software architecture| Publish-Subscribe Messaging(P&S)

37.Which of the following notations is used to support the physical view?| d. Non of the others

38 Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

38. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline? | Time Sequence Diagram

38.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

38.In UML 2.0, which diagram derived from use case scenarios| Use-case diagram

38.What of the following characteristic do MVC and PAC both have? | Support fot developing interactive application

38.Which of the following are considered as implementation attributes?| a. Interoperability, maintainability, prortability, fexibility

38.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc. | logical view

39 Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

39. In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

39.Batch-Sequence is one of the architecture styles | true

39.Conditional branching can be represented in sequence diagrams | True

39.Which of the below description is a limitation of MVC architecture sytle? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

39.Which of the following is an Open-Close principle�s implication? | Keep attributes private

39.Which of the following is an Open-Close principle�s implication| Keep attributes private

39.Which of the following notations is used to support the logical view?| d. All of the others

4 Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

4. CORBA is an example of the broker architecture. | True

4. Deployment diagrams are used to support the physical view, | True

4. Each component may have its provided ports and required ports from other components. | True

4. Element and connector attributes are derived from the project requirements. | True

4. Hierarchical architecture is a procedure-oriented design para- digm only. | False

4. Implicit notification is often used in MVC architecture. | True

4. Object-oriented design is a design methodology, | True

4. SAAM relies on use cases to test an architecture design. | False

4. The set of classes in a design is nailed down when the analysis class diagram is finished. | False

4. Two modules in a data flow system can change their order with- out any constraints. | False

4. Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

4.Architecture styles contribute to software quality attributes | true

4.CORBA is an example of the broker architecture | True

4.Component deployment is a good practice in a layered architecture. | True (correct)

4.Component deployment is a good practice in a layered architecture.| A- True

4.Deployment diagrams are used to support the physical view | True

4.Each component may have its provided ports and required ports from other components | True

4.Each component may have its provided ports and required ports from other components.| a. True

4.Element and connector attributes are derived from the project requirements | True

4.Hierarchical architecture is a procedure-oriented design paradigm only | False

4.Hierarchical architecture is a procedure-oriented design paradigm only.| False.

4.Implicit notification is often used in MVC architecture | True

4.Implicit notification is often used in blackboard architecture | True

4.Implicit notification is often used in blackboard architecture.| True.

4.Implicit notification is often used in the MVC architecture | True

4.Object-oriented design is a design methodology | True

4.Product line processes are a way to institutionalize systematic reuse | False

4.Product line processes are a way to institutionalize systematic reuse.| False

4.SAAM relies on use cases to test an architecture design | False

4.SAAM relies on use cases to test an architecture design.| False

4.The MVC model suggests the separation of the user interface from the logic of the software system. | True

4.The MVC models suggest the separation of the user interface from the logic of the software system?| a. True.

4.The outcome of Object Oriented Analysis stage are� | Requirement Specification, Initial logic structure of the system

4.The outcomes of Object Oriented Analysis stage are| Requirement Specification, Initial logic structure of the system

4.The set of classes in a design is nailed down when the analysis class diagram is finished | False

4.Two modules in a data flow system can change their order without any constraints | False

4.Two modules in a data flow system can change their order without any constraints.| False.

4.Which of the below description is a benefit of PAC architecture style? | Complete sepatation of presentation and abstraction

4.Which of the following structures describe the static properties of software architecture?| Software code structure.

40 Virtual machine architecture is a sub-type of \_\_\_\_\_\_\_\_ architecture | Hierarchical

40. Which of the following is the advantage of broker architecture? | Changeability and extensibility

40.A component is NOT \_\_\_. Which is the best choice? | A whole system which could be executed independent.

40.An interaction overview diagram is based on all low-level interaction diagrams | True

40.In UML 2.0, which of the following is true? | sequence diagram describes time sequence of messages pass between objects in timeline.

40.Pipe-and-Filter is one of the architecture styles| True

40.Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing

41 Reusability is one of the most imporant purpose of component engineering | T

41. Portability refers to \_\_\_\_ | The level of independence of the system on software and hardware platforms.

41.In Client-Server architecture style, there are follow types| Thin-client, Fat-client

41.In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a desscription of a box as follow �John:Doctor�. Which of the following is correct experssion?| a. An object named �John� whose class is �Doctor�

41.Which of the following are benefits of OO design? | All of the above.

42 .NET class library is organized in compoment structure | T

42. The acronym SAPCO is used for which of following purpose? | Describing the East to use attribute of user interface

42.In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

42.Sequence diagram both concurrencies and loops can be specified| c. Sequence diagram both concurrencies and loops can be specified

42.Which of the following are features of OO methodology? | Inheritance

43 Java API is built on the component structure | T

43. Which is the benefit of MVC | Multiple views synchronized with same data model

43.C is a popular OO programming language | False

43.In Fat-client type, the server includes which of the following processing| Presentation processing, Business Logic Processing

43.Which of the following diagram is NOT an structural diagram| 43. Which of the following diagram is NOT an structural diagram

44 Which tool can be used to describe an architecture style | "4+1" view model

44. Which of the following statement is TRUE? | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

44.The purpose of the software design phase is to product a software requirement specification| False

44.The set of classes in a design is nailed down when the analysis class diagram is finished | False

44.Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| Blackboard

45 To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case? | Tradeoff between scalability and performance

45. Which diagram is equivalent to a sequence diagram? | Collaboration diagram

45.The CRC card method is used to identify the responsibilities of each class | True

45.What is a class involved in accomplishing the responsibility of a class called in CRC modeling?| a. Collaboration

45.Which of following structures describe the static properties of software architecture| Software code structure.

46 Concurrency is not supported in batch-sequential architecture | T

46. Which of the following is one of advantages of Component-based architecture? | Productivity for the software development and future software development

46.Sequence diagrams do not describe loops in a message exchange process | False

46.Which of following structures describe the dynamic properties of software architecture| Software runtime structure

47 Peformance of batch-sequential architecture is higher than pipe-filter architecture | F

47. With a good software design. Which is the benefit we will get? | It helps to coordinate development teams to work together orderly.

47.A class is said to be cohesive if it supports as many associated responsibilities as possible | False

47.Which of the following is open-close principle?| b. Open to extension, close to modification

47.Which of the following notations is used to support the physical view| None of the above

48 Batch-sequential is a kind of data-centered architecture | F

48.Abstraction via inheritance is one effective way to achieve the open-closed principle | True

48.Use case diagrams are generated in the early stages of the SDLC. Whereas deloyment diagrams are generated in the later stges of the SDLC.| a. True

48.Which of the following are benefits of OO design| All of the above.

49 Pipe and filter architecture is suitable for embedded system | F

49. The outcome of Object Oriented Analysis are \_\_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

49.A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

49.Software architecture design is based on the software requirement specification| True

49.Which of the following are features of OO methodology| Inheritance

5 Which of the followings is NOT the benefit of hierarchical architecture? | Concurrency

5. Architecture design is about choosing the right single architecture style for a project. | False

5. Component diagrams are used to support the development view, | True

5. Each component must have its provided ports and required ports. | False

5. Hierarchical architecture can also be applied in any object- oriented software design. | True

5. Java can be used to implement a pipe and filter design system. | True

5. Multiple event targets can register with same event source. | True

5. Pipe-and-filter is one of the architecture styles. | True

5. Repository architecture design must also be object-oriented design. | False

5. The CRC card method is used to identify the responsibilities of each class. | True

5. The data in the Model component of the MVC architecture is active. | True

5. There is always an architecture design that can meet all requirements. | False

5. Web service is an example of SOA architecture. | True

5. Which of the following is an Open-Close principle�s implication? | Separate interface and implementation

5.Architecture design is about choosing the right single architecture style for a project | False

5.Component diagrams are used to support the development view | True

5.Design-for-commonality anticipates variation without compromising commonality | False

5.Design-for-commonality anticipates variation without compromising commonality.| False

5.Different architecture structures have different element and connector types.| True.

5.Each component must have its provided ports and required ports | False

5.Each component must have its provided ports and required ports| b. False

5.Hierarchical architecture can also be applied in any object-oriented software design | True

5.Hierarchical architecture can also be applied in any object-oriented software design.| True.

5.In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

5.Java can be used to implement a pipe and filter design system | True

5.Java can be used to implement a pipe and filter design system.| True.

5.Multiple event targets can register with same event source | True

5.Pipe and filter is one of the architecture styles | True

5.Repository architecture design must also be object-oriented design | False

5.Repository architecture design must also be object-oriented design.| False.

5.The CRC card method is used to identify the responsibilities of each class | True

5.The data in the Model component of the MVC architecture is active | True

5.There is always an architecture design that can meet all requirements | False

5.There is always an architecture design that can meet all requirements.| False

5.Web service is an example of SOA architecture. | True

5.Which of the following if limitation of Non-buffered Event-Based architecture? | Reliability and overhead of indirect invocations

5.Which of the following if limitation of Non-buffered Event-Based architecture| Reliability and overhead of indirect invocations

5.Which of the following is true for implementing the separation of the user interface from the logic of the software system? | All

5.Which of the following notations is used to support the physical view? | none of the others

5.Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

50 Design user interfaces are the task of the software designers and developers have nothing with the software users | F

50.To conform to the open-closed principle the use of global variables should be minimized | True

50.Which are the categories of operations that a class can provide?| b. Constructor, Destructor, Accessor, Mutator

50.Which are the categories of operations that a class can provide| Constructor, Destructor, Accessor, Mutator

51 Static user interfaces have 1D, 2D, 3D, and 4D styles | T

51.Polymorphism implies the following: < knowledge of OOP, need review>| All of the others

51.Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

51.Which of the following are considered as Runtime attributes| b. Availability, Security, Performance, Usabilty

52 The usability of a user interface is enhanced by consistency and integration | T

52.Object-oriented design is a design methodology| True

52.Polymorphism implies the following: | All of the others

52.Which of the following are considered as Runtime attribute| Availability, Security, Performance, Usability

53 Which is not correct way to use a component | lookup in EJB

53.Which of the following are considered as Runtime attribute? | Availability, Security, Perfomance, Usability

53.Which of the following is not an Open-Closed principle�s implication| Feel free to change software code

53.Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.| a. Logical view

54 How many different way are there to move data in P/F | 3

54.What is a class involved in accomplishing the responsibility of a class called in CRC modeling| Collaborator

54.Which of the following is a feature of object oriented methodology?| d. Inheritance

54.Which of the following is not an Open-Closed principle�s implication? | Feel free to change software code

55 Which of following software system cannot be designed using PAC | Compiler

55.What is a class involved in accomplishing the responsibility of a class called in CRC modeling? | Collaborator

55.Which is NOT a structure which can be described in a software architecture?| c. Operation structure

55.Which of the following diagram is NOT an structural diagram| Sequence diagram

56 Agents in the repository architecture normally do not talk with each other directly, except though data store | T

56.Architecture styles contribute to software quality attributes| a. True

56.In UML 2.0 Which of the following is true| Sequence Diagram both concurrencies and loops can be specified

56.Which of the following diagram is NOT an structural diagram | Sequence diagram

57 Implicit notification is often used in the blackboard architecture | T

57.In UML 2.0 Which of the following is true? | Sequence Diagram both concurencies and loops can be specified

57.In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression| An object named �John� whose class is �Doctor�

57.Which of the following structures descibe the dynamic properties of software architecture?| c. Software runtime structure

58 The rule-based knowledge is installed in the knowledge source component of the blackboard architecture | T

58.Abstraction via inheritance is one effctive way to achieve the open-close principle| True

58.In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression? | An object named �John� whose class is �Doctor�

58.Which of the following is Open-Closed principle| Open to extension, Close to modification

59 The dependency of agents on data store in the repository architecture is high | T

59.Polymorphism implies the following|c. All of the others

59.Which is not a structure which can be described in a software architecture| Dynamic structure

59.Which of the following is Open-Closed principle? | Open to extension, Close to modification

6 1. Which of the following is not a benefit of repository architecture? | Concurrency [Independent agents,Reusable agents,Loose coupling]

6. Agents in the repository architecture normally do not talk with each other directly, except though the data store. | True

6. An event can be either visible or invisible. | True

6. Design produces architecture that specify products and components in the form of Which of the following? | A detail-level design solution

6. Divide-and-conquer is not a suitable methodology for architec- ture design. | False

6. Only directly adjacent layers can invoke each other's methods in a layered architecture. | . False

6. Sequence diagrams do not describe loops in a message exchange process. | False

6. Service-oriented architecture is stateless, while component-based architecture is not. | True

6. Software architecture is a static software structure description. | False

6. The control flow in pipe and filter is explicit. | True

6. The data in the Abstraction component of a PAC agent is passive. | True

6. The provided interface ports may be in synchronous or asyn- chronous modes. | True

6. The software submodules and their interfaces are described in the logical view. | True

6.A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goal. | True

6.A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.| True

6.Agents in the repository architecture normally do not talk with each other directly except though the data store | True

6.Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True.

6.An event can be either visible or invisible | True

6.Client-server architecture is general is better availability than the multi-tier model | False (correct)

6.Client-server architecture is general is better availability than the multi-tier model| B- False

6.Divide-and-conquer is not a suitable methodology for architecture design | False

6.Element and connector attributes are derived from the project requirements.| True.

6.Only directly adjacent layers can invoke each other�s methods in a layered architecture | False

6.Only directly adjacent layers can invoke each other�s methods in a layered architecture.| False.

6.Package diagram is grouped in which of following UML diagram category? | Structure diagram

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6.Sequence diagrams do not describe loops in a message exchange process | False

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6.Service-oriented architecture is stateless, while component-based architecture is not.| True

6.Software architecture is a static software structure description | False

6.The control flow in pipe and filter is explicit | False

6.The control flow in pipe and filter is explicit.| True.

6.The data in the abstraction component of a PAC agent is passive | True

6.The look and feel of a user interface can be defined by using engineering rules | False

6.The look and feel of a user interface can be defined by using engineering rules.| False

6.The provided interface ports may be in synchronous or asynchronous modes | True

6.The provided interface ports may be in synchronous or asynchronous modes.| a. True

6.The software submodules and their interfaces are described in the logical view | True

6.Which of the following are considered as Runtime attributes | availability, security, performance, usability

6.Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

60 Select the disadvantages of direct manipulation | none

60.Which is not a structure which can be described in a software architecture? | Operation structure

60.Which of the following are benefits of object oriented design| e. All of the others

60.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios| Logical view

61.Which of the following are not benefits of pipe and filter| Interactive

61.Which of the following is an architecture design evaluation methodology?| a. SAAM

61.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc | Logicalview

62.SAAM relies on scenarios to test an architecture design| b. True

62.Which of the following are not benefits of batch sequential| All of the above

63.The below image is a snapshot of which architecture styles following| Event-based architecture

63.Which of the following is NOT a benefit of Component architecture| a. Performance

64.COBOL is widely used to implement batch sequential? | True

64.RMI is an example of the broker architecture| b. True

64.The follow image is an example of| Repository architecture

65.Two modules in a data flow system can change their order without any constraints | False

65.Which of the following is NOT a typical style of distributed architecture?| MVC

65.Which of the following is true about buffered message system| All of the others

66.In SOA architecture, Interperability means what?| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

66.Java can be used to implement a pipe and filter design system | True

66.The below image is a snapshot of which architecture styles following| Repository architecture

67.Event-based architecture is appropriate for a compiler in an IDE design| a. False.

67.The control flow in pipe and filter is explicit | True

67.Which of the following architecture is suitable for the embedded system software design| Process-Control Architecture

68.The control flow in batch sequence is implicit | True

68.The image below is an example of static style of user interce�slaout? Which which is the correct answer?| a. It�s 1D layout

68.Which of the following is an Open-Close principle�s implication| Separate interface and implementation

69.Based on connector�s information carrier, the connectors in software architecture might be classification into | Variable, Environment resource, Method, Message

69.The abstraction and presentation components in a PAC agent do not talk to each other directly| a. True

69.There are data sharing (shares data) among all subsystems in a data flow systems | False

7 A user interface is a user-centered design product | true

7. A class is said to be cohesive if it supports as many associated responsibilities as possible. | False

7. A component architecture can be derived from use case analysis and business concept diagrams. | True

7. Batch sequential architecture is generally more time efficient than pipe and filter. | False

7. Component deployment is a good practice in a layered architecture. | True

7. Concurrency control activity is part of the process view, | True

7. Coupling in message-driven architecture is even looser than in event-driven architecture. | True

7. Deployment decisions should be reflected in early architecture designs. | False

7. PAC agents are loosely coupled. | True

7. Software quality attributes must satisfy functional requirements. | False

7. The control flow in batch sequential is implicit | True

7. Which of following is one limitation of Client/Server architecture? | Server availability and reliability

7.A class is said to be cohesive if it supports as many associated responsibilities as possible | False

7.A component architecture can be derived from use case analysis and business concept diagram.| a. True.

7.A component architecture can be derived from use case analysis and business concept diagrams | True

7.A customizable user interface is not a good style since it will confuse users. | False

7.A customizable user interface is not a good style since it will confuse users.| False

7.Batch sequential architecture is generally more time efficient than pipe and filter | False

7.Batch sequential architecture is generally more time efficient than pipe and filter.| False

7.Component deployment is a good practice in a layered architecture | True

7.Component deployment is a good practice in a layered architecture.| True.

7.Concurrency control activity is part of the process view | True

7.Coupling in message-driven architecture is even looser than in event-driven architecture | True

7.Deployment decisions should be reflected in early architecture designs | False

7.Divide-and-conquer is not a suitable methodology for architecture design.| False.

7.In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �Human:Player�, which of the following is correct expression? | an object named �Human� whose class is �Player�

7.Loose coupling is used between repository agents | True

7.Loose coupling is used between repository agents.| True.

7.PAC agents are loosely coupled | True

7.Software quality attributes must satify functional requirement | False

7.The Architectural Decision Procedure includes following steps |1.Determine the required quality attributes in requirement analysis 2.Quantify the quality attributes 3.Compute the weighted sum

7.The Architectural Decision Procedure includes following steps| 2-1-3

7.The control flow in batch sequential is implicit | False

7.The control flow in batch sequential is implicit.| True.

7.The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

7.The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach.| True

7.The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset-supported development approach | True

7.Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions.

70.Sequential flow control can be predetermined in pipe and filter | True

70.The PAC architecture is a hieracchically structured sofware architecture| a. True

70.Which of the following diagram called| Sequence diagram

71.Polymorphism principles means that| An object can have different appearance/behaviors under different circumstances.

71.Sequential flow control can be predetermined in batch sequence | True

71.There is always onlyone architecture design that can meet all requirements| a. False

72.The usability of a user interface is enhanced by consistency and integration.| a. The usability of a user interface is enhanced by consistency and integration.

72.Which of the following are considered as Business attributes| Time to market, Lifetime, Cost

73.A component architecture can be derived from use case analysis and business concept diagrams| a. True

73.When will you apply the Process-Control architecture| Developing a system which needs to maintain an output data at a stable level

74. The Architectural Decision Procedure includes following steps| 2 => 1 => 3

74.Which of the following is NOT the benefit of Broker architecture style?| a. Easy in testing

75.ATAM is which of the following methods| Architecture Trade-off Analysis Method

75.Blackboard architecture is difficult to debug and test.| True

76.Modifiability and expandability are essentially the same quality attribute.| False

76.Which of the following is one of distributed architecture| Service Oriented architecture

77.Client-server architecture in general is more scalable than the multi-tier model? False

77.Which of the following is a PAC architecture benefit| All of the others

78.Implicit notication is often used in the MVC architecture.| True

78.State machine diagram is grouped in which of following UML diagram category| Behavioral Diagrams

79.Google Map is an example of services in SOA architecture| True

79.Sequence diagram are used to support| The logical view

8 All user interfaces are serving users, including information providers, in certain circumstances | True

8. A registered event target must be ready to handle the event when the event is fired off. | True

8. Abstraction via inheritance is one effective way to achieve the open-closed principle. | True

8. Architecture styles contribute to software quality attributes. | True

8. Core type classes can be recognized as a new component. | True

8. It is beneficial to integrate architecture design with the process of requirements analysis. | True

8. System and network configuration decisions are part of the phys- ical view. | True

8. The Abstraction and Presentation components in a PAC agent do not talk to each other directly. | True

8. There are data sharing (shared data) among all subsystems in a data flow system. | True

8. There is data sharing between all layers in a layered architecture. | False

8. There is tight dependency of agents on the data store in the repos- itory architecture. | True

8. Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

8.A registered event target must be ready to handle the event when the event is fired off | True

8.A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False

8.A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.| False

8.Abstraction via inheritance is one effective way to achieve the open-closed principle | True

8.Architecture styles contribute to software quality attributes | True

8.Core type classes can be recognized as a new component | True

8.Core type classes can be recognized as a new component.| a. True.

8.Deployment decisions should be reflected in early architecture designs.| False.

8.Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

8.Design produces architectures that specify products and components in the form of which of the following| A detail-level design solution

8.It is beneficial to integrate architecture design with the process of requirements analysis | True

8.It is beneficial to integrate architecture design with the process of requirements analysis| a. True

8.Sequential flow control can be predetermined in batch sequential. | True (correct)

8.Sequential flow control can be predetermined in batch sequential| A- True

8.System and network configuration decisions are part of the physical view | True

8.The abstraction and presentation components in a PAC agent do not talk to each other directly | True

8.The usability of a user interface is enhanced by consistency and integration | True

8.The usability of a user interface is enhanced by consistency and integration.| True

8.There are data sharing (shared data) among all subsystems in a data flow system | False

8.There are data sharing (shared data) among all subsystems in a data flow system.| False.

8.There is data sharing between all layers in a layered architecture | False

8.There is data sharing between all layers in a layered architecture.| False.

8.There is tight dependency of agents on the data store in the repository architecture | True

8.There is tight dependency of agents on the data store in the repository architecture.| True.

8.Time to market belongs to which of the following quality attributes group? | Business atttributes

8.Which of the following is TRUE? | Hardware independence does not imply software independence

80.The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True

80.Which of the following is a typical style of Hierarchical architecture| Hierarchical structure, Layered, Master-Slave, Virtual Machine

81.Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style| True

81.The following diagram is a description of which architecture style| Blackboard architecture

82.1) is better because of which following| Easy expansion

82.Which of the following is TRUE about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

83.Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following| Allows stateful service

83.Coupling in message-driven architecture is even looser than in event-driven architecture| a. True

84.Batch sequential architecture is general more time efficient then pipe and filter| False

84.In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline| Sequence Diagram

85.In Non-buffered Event-based architecture, how many partitions a system could be broken into| 2 partitions

85.In user interface design step.User-centered factor consideration means what?| d. Designers must take into account the needs, experiences, and capabilities of the system users.

86.Core type classes can be recognized as a new component| True

86.Portability refers to | The level of independence of the system on software and hardware platforms

87.SAPCO stands for which?| a. It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

87.Which is the benefit of MVC| Multiple views synchronized with same data model

88.One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

88.Which is the most appropriate architecture style to develop a radar system like below?| PAC

89.In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?| b. Client-side proxy

89.Which diagram is equivalent to a sequence diagram?| State machine diagram

9 Design and implementation of user interfaces must satisfy users' requirements | true

9. A core type component does not depend on any other classes. | True

9. A message receiver is not required to be ready when the mes- sage arrives. | True

9. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner. | False

9. Based on connector�s information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_ | Variable, Environment resource, Method, Message

9. Event-based architecture is a good candidate for interactive sys- tems with graphic user interface. | True

9. In a software architecture, a process, object, service or an instance of software component is \_\_\_ | A software element

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

9. Sequential flow control can be predetermined in pipe and filter. | True

9. Software architecture = software architecture styles. | False

9. Software architecture is concerned only with functional requirements. | False

9. The "Look and Feel" feature is well supported in the MVC architecture. | True

9. The callback method is typically used in a main-subroutine architecture. | False

9.A core type component does not depend on any other classes | True

9.A core type component does not depend on any other classes.|a. True.

9.A message receiver is not required to be ready when the message arrives | True

9.A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

9.Activity diagrams are used to support the process view.| True.

9.Event-based architecture is a good candidate for interactive systems with graphic user interface | True

9.Event-based architecture is a good candidate for interactive systems with graphic user interface.| True

9.Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

9.Facts are installed in the Blackboard component of the Blackboard architecture?| A- True

9.Reuse is not an end in itself but a means to an end.| True

9.Reuse is not and end in itself but a means to an end | True

9.Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

9.Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| False.

9.Sequential flow control can be predetermined in pipe and filter | True

9.Sequential flow control can be predetermined in pipe and filter.| True.

9.Software architecture = software architecture styles | False

9.Software architecture is concerned only with functional requirements|False

9.The �Look and feel� feature is well supported in the MVC | True

9.The acronym SAPCO describes | The satisfactory principles of user interfaces

9.The acronym SAPCO describes| c. The satisfactory principles of user interfaces

9.The callback method is typically used in a main-subroutine architecture | False

9.The callback method is typically used in a main-subroutine architecture.| False.

9.Which is the statement you can describe about MVC architecture style? | MVC is now a very popular architecture style.

9.Which of the following is TRUE for implementing the separation of the user interface from the logic of software system? | all

9.Which of the following is TRUE for implementing the separation of the user interface from the logic of software system| The same logic can be accessed by different kinds of user interfaces

90.In user interface evaluation step, we should focus on what?| c. The usability of the interface

90.Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system| The same logic can be accessed by different kinds of user interfaces.

94.Which of the followings are not benefits of batch sequential| All

95.Which of the following is not a benefit of repository architecture| Concurrency

96.Which of the following is a typical design domain of blackboard architecture| AI system

97.Which of the following is not a benefit of hierarchical architecture| Interactive

98.Which of the following is a disadvantage of hierarchical architecture| Incremental

99.Which of the following is one of the benefits of asynchronous architecture| Loose coupling of modules

A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public

A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public

A P2P messaging architecture is composed of \_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_ ,and \_\_\_\_\_\_\_\_. | senders, receivers message queues

A \_\_\_\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well-defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | Component

A \_\_\_\_\_\_\_\_\_\_\_ is a collection of computational and storage devices connected through a communications network. | distributed system

A class is said to be cohesive if the following is true: | it has one clearly defined responsibility

A component in Component diagram represents | Deployed reusable binary

A component is NOT\_. Which is the best choice?|A whole system which could be executed independent

A component may consist of many related classes stored and deployed in the many binary assemblies. | False

A message queue is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture between message senders and message receivers | one-to-one . point-to-point

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

A\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well | Component

A\_\_\_\_\_\_\_\_ is a collection of computational and storage devices connected through a communications network | Distributed system

According to connector active time, we can classify connector into \_\_\_\_\_\_\_\_\_\_\_\_\_ | Programmed connectors Event-driven connectors

Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

All of the others ( a user interface is, All user interface is, Design and implementation of user)

An EJB component is packaged in a \_\_\_\_\_ archive file. | JAR

An event can be either visible or invisible | True

Architecture style heavily depends on requirement analysis. | True

Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_ diagrams. | Sequence diagram

At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

Batch-sequential, mutil-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, pere-to-pear message exchange or message broadcasting are all discribed as: | the topology of the dynamic structure

Blackboard architecture is difficult to debug | true

Both Sequential and Parallel processing are supported by | Pipe and Filter architecture

Both Sequential and Parallel processing are supported by | [C] Pipe and Filter architecture

COBOL is widely used to implement batch sequential | True

CORBA is a good implementation example of\_\_\_ | Broker Architecture

Component deployment is a good practice in a layered architecture | True

Component-based technology is a suitable technology to implement layered architecture. | True

Concurrency is described in | Activity diagram

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Data Flow Diagrams (DFD), and State Transition Diagrams (STD) are widely used in software design | true

Each component must have its provided ports and required ports. | False

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher )|Component-based > Object-oriented > Functional-oriented > Service-based

Evaluating the scalability of architecture styles, which is the right order of scalability of distributed architecture styles? (">" is better) | Client-Server > Broker > Service-oriented

FPT University's CMS site is an example of repository design | B True

FPT University's CMS site is an example of repository design | True

Facts are installed in the Blackboard component of the blackboard architecture | B True

Facts are installed in the Blackboard component of the blackboard architecture | True

For a large-scale software project, \_\_\_\_\_\_\_\_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness. | heterogeneous architecture

Hierarchical architecture is a procedure-oriented design paradigm only | False

Hierarchical architecture is a procedure-oriented design paradigm only | [B] False

How many ways to make data flow in pipe and filter architecture? | 3 ways: push only/ pull only/ push and pull

Implicit notification is often used in blackboard architecture | True

Implicit notification is often used in blackboard architecture | [B] True

In Client-Server architecture style, there are follow types:|Thin-Client, Fat-Client

In Client/Server architecture | All of the others (The server can be a data, The business logic, A client can be a Web client)

In MVC, said that it is easy to plug-in new or change interface views mean which of the following?|It allows updating the interface views with new technologies without overhang the rest of the system.

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | 2 partitions

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | [A] 2 partitions

In SOA architecture, Interoperability means what?|Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

In Thin-Client type, the server includes which of the following processing | Data Storage Processing, Business Logic Processing

In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- position. | composition

In \_\_\_\_\_\_\_\_\_\_\_, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | batch sequential architecture

In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | ":Customer" represents a class named "Customer"

In broker architecture, What is the responsibility of stub? | Mediates between the client and the broker and provides additional transparency between them.

In runtime quality attribute,..... refers to increasing a systems efficiency with regard to response time, throughput, and resource utilization, attributes which usually conflict with each other. | Performance

Java can be used to implement a pipe and filter design system | True

Java can be used to implement a pipe and filter design system | [B] True

Loose coupling is used between repository agents. | True

Many applications designed in the process-control architecture include knowledge-based AI systems, voice and image cognition systems, security systems, business resource management systems. | False

Message-based architecture is appropriate for a compiler in an IDE design | False

Message-based architecture is appropriate for a compiler in an IDE design | [B] False

Multiple event targets can register with same event source | True

Multiple event targets can register with same event source | [B] True

OO paradigm does not imply the following: | smarter artificial intelligence of software systems

OO principles do not include the following | concurrency

Object-oriented software architecture is an extension of component-based architecture. | False

Only directly adjacent layers can invoke each other's method in a layered architecture. | False

Only directly adjacent layers can invoke each other's method in a layered architecture. | [A] False

Open-Close principle requires that a system should be open to extension but close to modification. This implies the following: | new functions should not be achieved by modifying the existing code

Perform trade-off analysis on quality attributes and other non-functional requirements before design phase. | true

Polymorphism implies the following | the same operation might behave differently at runtime

Public interface of a class consists of the following: | public attributes and public operations

QN=1 (10168)Choose the correct statement. | Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world.

QN=10 (10211)Based on connector's synchronization mode, the connectors could be classified into which categories below? |Blocking connector and non-blocking connector.

QN=11 (10212)At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

QN=12 (10273)Which is the best answer for the meaning of the description of the class diagram below when you read it? | A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor.

QN=13 (10264)Which is the following diagram called? | Sequence diagram (Note:From user)

QN=14 (10243)Which of the following notations is used to support the physical view? | None of the others

QN=15 (10248)State machine diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

QN=16 (10261)Which is the following diagram called? | Timing diagram (From "ad RM scheduling")

QN=17 (10302)Which of the following is NOT an Open-Close principle's implication? | Feel free to change software code.

QN=18 (10306)The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

QN=19 (10300)Which of the following is an Open-Close principle's implication? | Keep attributes private

QN=2 (10157)Which of the following are considered as Business attributes? |Time to market, Lifetime, Cost

QN=20 (10290)Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

QN=21 (10281)In UML 2.0, Which of the following is TRUE? | Sequence Diagram describes time sequence of messages passed between objects in timeline.

QN=22 (10335)When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

QN=23 (10360)Which of the following is the INCORRECT statement about active filter? | It lets connected pipes to push data in and pull data out.

QN=24 (10328)Which of the following statement is TRUE? | One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

QN=25 (10363)Which of the following is the INCORRECT statement about passive filter? | It works with a passive pipe which provides read/write mechanisms for pulling and pushing.

QN=26 (10357)Which of the following is a CORRECT statement? | Filters can run in separate threads of the same process.

QN=27 (10396)The following image is an example of which architecture style? | Repository architecture style and (?) is a Data Repository

QN=28 (10392)In the Repository architecture, Said that the client control the logic flow means what? | The software component agents control the computation, request and update data on repository actively.

QN=29 (10380)\_\_\_ are installed in the Blackboard component of the blackboard architecture | Facts

QN=3 (10153)Portability belongs to which of the following quality attributes group? | Implementation attributes

QN=30 (10400)Data store reliability and availability are limitations of which architecture style below? | Repository architecture

QN=31 (10374)Which of the following is the benefit of Blackboard Architecture? | Concurrency

QN=32 (10429)In DFD, the follow image is a representation of which flow? | Transaction flow

QN=33 (10409)Which of the following is NOT the limitation of layered architecture? | Incremental software development based on increasing levels of abstraction.

QN=34 (10437)With an application that has clean divisions between core services, critical services, user interface services�. Which architecture style will you apply? | Layered architecture

QN=35 (10441)A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank? | A virtual abstraction

QN=36 (10415)Which of the following is the limitation of virtual machine architecture? | Overhead due to the new layer

QN=37 (10450)The limitation of message-driven architecture over event-driven architecture is which of the following? | Capacity of message queue.

QN=38 (10475)Which architecture style supports scalability and reliability better? | Buffered message-based architecture (2)

QN=39 (10463)When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.Among the styles below, which is the architecture style you will choose to apply into your system architecture? | Buffered Message-based Architecture style

QN=4 (10156)Architecture Styles contribute to which of the following? | Software Quality Attributes

QN=40 (10449)Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

QN=41 (10490)Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents

QN=42 (10484)The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice? | 3 major partitions - Data module, Control module, Presentation Module

QN=43 (10528)When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose? | PAC architecture

QN=44 (10503)What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

QN=45 (10492)Which of the followings is a typical design domain of the MVC architecture? | Web server site application

QN=46 (10494)Which of the following are PAC architecture's benefits? | All of the others

QN=47 (10569)In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | Broker

QN=48 (10540)Which of the followings is a style of distributed architecture? | Service Oriented architecture

QN=49 (10562)Which of the following is the most important quality attribute of Broker architecture style? | Better decoupling between clients and servers

QN=5 (10171)Usability belongs to which of the following quality attributes group? | Runtime attributes

QN=50 (10533)Which of the followings is NOT the benefit of distributed architecture? | Testability

QN=51 (10541)The image below describes a distributed architecture style. Choose which the suitable style is? | SOA

QN=52 (10578)Which is the reason of the increase of overall system reliability when you apply component-based architecture? | The reliability of each individual component enhances the reliability of the whole system via reuse.

QN=53 (10570)Which of the following description is TRUE? | A component is stored in a binary format, executable and deployable.

QN=54 (10585)Which of the following is a benefit of component-based architecture? | Independency and flexible connectivity of components

QN=55 (10602)Which of the following attribute relates to time and space? | Efficiency

QN=56 (10600)SAAM is which of the following methods? | Software Architecture Analysis Method

QN=57 (10605)Which of the following attribute relates to user interfaces' learning ability? | Usability

QN=58 (10628)In User Interface design step, Separation factor consideration means what? | Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations.

QN=59 (10624)In User Interface design step, Intuitive factor consideration means what? | The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

QN=6 (10162)Usability refers to \_\_\_\_ | The level of "satisfaction" from a human perspective in using the system.

QN=60 (10645)Design produces architectures that specify products and components in the form of which of the following? | An abstract-level design solution

QN=7 (10218)In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ | A software element

QN=8 (10200)In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

QN=9 (10237)According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?| Variable

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | [B] False

Select approaches to evaluate an architecture design | All of the others (Active Reviews for Intermediate Designs, Software Architecture Analysis Method, Architecture Trade-off Analysis Method)

Select correct statement | A protocol-based connector can better support interactions between hetrogeneous elements

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

Select correct statement | Concurrency is not supported in batch sequential architecture

Select correct statement | None of the others (The static and runtime, Architecture designs)

Select correct statement | pipe and filter is generally more time efficient than batch sequential

Select correct statement | A protocol-based connector can better support interactions between hetrogeneous elements

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

Select correct statement | Concurrency is not supported in batch sequential architecture

Select correct statement | None of the others (The static and runtime, Architecture designs)

Select correct statement | pipe and filter is generally more time efficient than batch sequential

Select correct statement about inheritance | Class can inheritances more than one interface

Select correct statement about inheritance | Class can inheritances more than one interface

Select correct statement(s) | All of the others (Reusability is one of, NET class library, Java API is built)

Select correct statement(s) | All of the others (Reusability is one of, NET class library, Java API is built)

Select correct statement(s): Statement 1: Good software architecture designs. Statement 2: Good software architecture designs | Statement 1 is correct ("divide-and-conquer")

Select design pattern which relate to data repository architectureChoose one answer. | All of the others ( Layered multi-tier MVC )

Select incorrect statement | Agents in the repository

Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select incorrect statement | JDBC is XML based

Select incorrect statement | design user interfaces are the task of the software designers and developers

Select incorrect statement | Agents in the repository

Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select incorrect statement | JDBC is XML based

Select incorrect statement | design user interfaces are the task of the software designers and developers

Select incorrect statement about module in interaction-oriented software architecture | The data repository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data initialization and system configuration actions.

Select major style categories of interaction-oriented architectures: | PAC (Presentation-Abstraction-Control) , MVC (Model-View-Controller)

Select partition in blackboard architecture | Controller , Blackboard , Knowledge-source

Select partition in blackboard architecture | Blackboard, Knowledge-source

Select software element in runtime dynamic structure | Sessions or transactions

Select the 1 | SDD is a programming language , Software architecture is concerned only with functional requirements.

Select the advantages of broker architecture | All of the others (Simplicity for clients, Changeability and extensibility, Server component implementation)

Select the applicable domains of repository architectureChoose one answer. | None of the others

Select the benefit of nonbuffered event-based implicit invocation architecture | All of the others (Reusability of components, Framework availability, Independency and flexible connectivity)

Select the correct order from upper layer to lower layer of SOAP protocol, an example of layer architecture | SOAP XML HTML TCP/IP

Select the correct order of steps in SAAM analysis : | 1-3-2 (1- Define a collection, 2- Perform an analysis, 3- Perform an evaluation)

Select the correct statement about pipe/filter architecture | There are two types of filters: active and passive.

Select the correct statement about pipe/filter architecture Choose one answer | There are two types of filters: active and passive.

Select the diagram is not used to support the logical view | None of the others

Select the different between PAC and MVC | All of the others ( In PAC, the system is decomposed, PAC support of multitasking and multiviewing, PAC was developed from MVC to support)

Select the different between component-oriented design and object-oriented design: | All of the others ( Component-oriented design increases reliability, A component-oriented design represents, Component-oriented design reduces time in market)

Select the disadvantage of virtual machine architecture | Slow execution of the interpreter due to the interpreter nature

Select the disadvantages of direct mainpulation | None of the others

Select the features of OO methodology? | Inheritance

Select the incorrect mapping between components in PAC and components in MVC | Control module of PAC - Control module of MVC

Select the incorrect mapping between components in PAC and components in MVC | Control module of PAC - Control module of MVC

Select the incorrect statement | A P2P messaging architecture includes: publisher, subcribers and message topic

Select the incorrect statement | P2P and Publisher-Subcriber architecture is two type of buffered asynchronous communication architecture.

Select the incorrect statement | Publish-subscribe messaging architecture uses message queue as a buffer.

Select the incorrect statement | P2P and Publisher-Subcriber architecture is two type of buffered asynchronous communication architecture.

Select the incorrect statement Choose one answer. | Publish-subscribe messaging architecture uses message queue as a buffer.

Select the other name of implicit asynchronous communication software ArchitectureChoose one answer. | Observer pattern

Select the partition of nonbuffered event-based implicit invocation architecture | All of the others (message service providers, message producers, message consumers )

Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners, Event sources

Select the type of data-flow architectures that is suitable for the embedded system | None of the others ( Data repository , Blackboard , Pipe and filter )

Select types of data-centered software architecture | Blackboard , Repository

Service-oriented architectures are widely used in B2B enterprise business applications. | True

Software architecture design involves many software design methodologies and architecture styles. | True

The Architecture Decision Procedure includes following steps, Which is the correct order of these steps? | (2)Determine the required quality attributes in requirement analysis => (1)Quantity the quality attributes =>(3) Compute the weighted sum

The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

The \_\_\_\_\_\_\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other. | Data flow

The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers

The advantage of multi-tier over the two-tier architecture is the enhancement of reusability and scalability by adding the middle tier.Any business-related changes are made only to the front-tier. | False

The advantage of the main-subroutine architecture are | Object Orientation, Top-down refinement design

The application domain of the layered architecture is | All of the others ( Any system that can be divided, Applications that have a number of classes, Applications that have clean divisions)

The below image is a snapshot of which architecture styles following? | Event-based architecture

The benefit of the broker architecture | all of the others

The control flow in batch sequential is implicit | True

The control flow in batch sequential is implicit | [A] True

The control flow in pipe and filter is explicit | True

The control flow in pipe and filter is explicit | [B] True

The data store in the blackboard architecture option is active, and its clients are passive. | True

The data store in the repository architecture is \_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive / active

The disadvantages of VM are | Additional overhead due to the new layer

The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_component of a blackboard system | Blackboard

The following diagram is a description of which architecture style? | [D] Repository Architecture

The following diagram is a description of which architecture style?(---> control flow ) | Repository Architecture

The following image is an example of which architecture? | Batch Sequence Architecture

The following image is an example of which architecture? | [B] Batch Sequence Architecture

The main benifit of component-based architecture is \_\_\_\_\_\_\_\_\_\_ | Reusability

The master-slave architecture is a specialized form of main-subroutine architecture | True

The master-slave architecture is a specialized form of main-subroutine architecture | [A] True

The multiplicity is described in\_\_\_\_\_\_\_ | composite diagram

The nonbuffered event-based implicit invocation architecture breaks the software system into two partition \_\_\_\_\_ and. | event sources/ event listeners

The provided interface ports may be in synchronous or asynchronous modes. | True

The publish-subscribe messaging architecture is a \_\_\_\_\_\_\_\_ architecture where publisher clients send messages to a message topic that acts like a bulletin board. | hub-like

The rule-based knowledge is installed in the \_\_\_\_\_\_\_\_\_\_\_ component of the blackboard architecture. | Knowledge source

The stakeholders of Development view can be | Software project manager c. Programmers

The stakeholders of physical view are | System Admin

The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as | The topology of the static structure

The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

The testing of synchronous architecture is more straightforward than asynchronous architecture | True

The testing of synchronous architecture is more straightforward than asynchronous architecture | [A] True

The yellow page of web service is an example of repository design | True

The yellow page of web service is an example of repository design | [A] True

The\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other | Data flow

The\_\_\_\_\_\_\_ is avariant of the main-subroutine architecture style that supports fault tolerance and system reliability | Master-slave architecture

The\_\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data | data flow

There are data sharing (shared data) among all subsystems in a data flow system | False

There are data sharing (shared data) among all subsystems in a data flow system | [B] False

There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ | blackboard, repository

Tight coupling is more appropriate than loose coupling in the following application scenario: | database application

To achieve loose coupling, which of the following can be done: | reduce cross-dependency among classes

To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade off in this case? | Trade off between scalability and performance

Two modules in a data flow system can change their order without any constraints | False

Two modules in a data flow system can change their order without any constraints | [A] False

Typical OO languages include the following: | All of the others (C++, Java, C#)

Virtual machine architecture is a sub-type of\_\_\_\_\_\_ architecture. | Hierachical

Virtual machine architecture is used for the software system where reliability is critical. | False

What of the following characteristic do MVC and PAC both have?|Support for developing interactive application

What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug

When do we use pipe& filter architecture? | All of the others (Applicable whenever the data format, Applicable whenever system, Suitable for producer)

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | A client's request or a response to client must go through potentially several layers.

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | [B] A client's request or a response to client must go through potentially several layers.

Which UML diagrams are often used to support development view? | Package diagrams d. Component diagrams

Which UML diagrams are often used to support development view? | Component diagrams, Package diagrams

Which are the benefits of nonbuffered event-based implicit invocation architecture | All of the others

Which are the different between component-oriented design and object-oriented design? | All of the otherr

Which diagrams are used in logical view? | All of the others

Which following software system cannot be designed using PAC? | Compiler

Which is NOT UML behavior description diagram? | Component diagrams

Which is NOT a data type of variable in process control system ? | Output variable

Which is NOT a implementation quality attribute? | Security

Which is NOT a style of data-centered architectures? | All of the others (Batch sequential, Pipe and filter, Process Control)

Which is NOT a style of data-centered architectures?Choose one answer. | All of the others (Process Control,Pipe and filter, Batch sequential )

Which is NOT a type of software architecture? | None of the others

Which is NOT style of hierarchial architecture? | event-based

Which is NOT the benefit of MVC architecture? | The division between the View and the Controller is clear.

Which is NOT the way to make the data flow in Pipe and Filter architecture? | Leave data in a center repository

Which is NOT the way to make the data flow in Pipe and Filter architecture? | [C] Leave data in a center repository

Which is a deployable software package that can provide services to its clients? | Component

Which is dynamic diagram? | Use-case diagram

Which is not component in interaction-oriented software architecture | Data repository

Which is not correct way to use a component? | lookup in EJB

Which is static diagram? | All of the others

Which is the correct order of these steps? | 2 => 1 => 3

Which is the input of the software design phase? | SRS

Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

Which is the purpose of Main-Subroutine Architecture? | To reuse the subroutines.

Which is the purpose of Main-Subroutine Architecture? | [C] To reuse the subroutines.

Which is the reason when you apply component-based architecture, overall system reliability will be increased?|You could increase the reliability of each individual component in your own way

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | Forward reasoning

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | [D] Forward reasoning

Which is the statement you can describe about PAC architecture style? | PAC's Agents are loose coupling and high independent

Which kind of UML diagram can be expressed asynchronous message invocation | Sequence diagram

Which kind of class is not used in an analysis class diagram? | Concrete class

Which model is the most commonly distributed system architectures? | Client-server model

Which module in MVC deals with everything graphical? | View

Which modules in MVC architecture can be combined for a simple GUI application? | View and Controller

Which of data flow architecture is commonly applied in embedded software system? | Process Control Architecture

Which of the below description is a benefit of PAC architecture style? | Complete separation of presentation and abstraction

Which of the below description is a limitation of MVC architecture style?|Does not fit well agent-oriented applications such as interactive mobile and robotics applications

Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

Which of the following architecture is suitable for the embedded system software design? | [C] Process-Control Architecture

Which of the following are NOT considered as Business attributes? | Availability: a system's capacity to be available 24/7

Which of the following are benefits of Non-buffered Event-based architecture? | Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are benefits of Non-buffered Event-based architecture? | [D] Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are nor benefits of pipe and filter? | Interactive

Which of the following are not benefits of batch sequential? | All of the others

Which of the following are not benefits of batch sequential? | [B] All of the others

Which of the following are not benefits of pipe and filter? | Interactive

Which of the following are not benefits of pipe and filter? | [D] Interactive

Which of the following attribute related to hardware independence and installability?|Portability

Which of the following attribute related to time and space? | Efficiency

Which of the following attributes are considered as business attributes? | None of the others

Which of the following attributributes? | None of the others

Which of the following is NOT a benefit of the MVC architecture? | Supports mutiple independence agents

Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

Which of the following is NOT benefit of pipe & filter? | Performance

Which of the following is NOT buffer-based? | Callback

Which of the following is NOT limitations of pipe & filter? | It supports only sequential execution.

Which of the following is NOT the benefit of Multi-tier architecture style?|Load balancing

Which of the following is NOT the benefit of hierarchical architecture? | concurrency

Which of the following is NOT the benefit of repository architecture? | Loose coupling

Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

Which of the following is NOT the typical design domain of the asynchronous architecture | Hierarchical structure

Which of the following is NOT the typical design domain of the asynchronous architecture | Hierarchical structure

Which of the following is TRUE about heterogeneous architecture?|If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Which of the following is TRUE? | Hardware idependence does not imply software independence

Which of the following is a typical design domain of blackboard architecture? | Al system

Which of the following is a typical design domain of blackboard architecture? | [B] Al system

Which of the following is a typical style of distributed architecture? | Client-server

Which of the following is a typical style of distributed architecture? | SOA N-Tiers Client-server Broker

Which of the following is a typical style of distributed architecture? | SOA | N-Tiers | Client-server | Broker

Which of the following is an architecture design evaluation methodology? | SAAM

Which of the following is buffer-based software architecture? | Publish-Subscribe Messaging (P&S)

Which of the following is buffer-based software architecture? | [C] Publish-Subscribe Messaging (P&S)

Which of the following is false for implementing the separation of the user interface from the logic of the softeware system? | None of the others (Increase reusability, The business logic and the user interface, Ease maintainability)

Which of the following is false for implementing the separation of the user interface from the logic of the softeware system? | None of the others (Increase reusability, The business logic and the user interface, Ease maintainability)

Which of the following is not a benefit of component architecture? | Concurrency

Which of the following is not considered as event-driven? | callback

Which of the following is not considered as event-driven? | callback

Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

Which of the following is one of the benefits of asynchronous architecture? | [B] Loose coupling of modules

Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | Blackboard Architecture

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | [D] Blackboard Architecture

Which of the following is the limitation of Repository Architecture Style? | High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | Overhead cost of moving data on network if data is distributed..

Which of the following is the limitation of Repository Architecture Style? | [A] High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | [A] Overhead cost of moving data on network if data is distributed..

Which of the following is true?

Which of the following is true? | All of the others (Web service are example, The application domain, Web applications)

Which of the following is typical design domain for the MVC architecture? | Web client site application

Which of the following is used to describe the life-cycle of an object? | state machine diagram

Which of the following keywords in the C# language is not an example of its support of encapsulation? Choose one answer. | partial

Which of the following notations is not used to support the logical view? | Deployment diagram

Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

Which of the following statement is TRUE? | Three-tier is the same as MVC architecture

Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one

Which of the followings are the key components of an architectural style? | All of the others

Which of the followings is NOT built with hierarchy architecture? | N-Tiers architecture

Which of the followings is a style of distributed architecture?|Service Oriented architecture

Which of the followings is a typical design domain of the blackboard architecture? | AI system

Which of the most appropriate architecture style to develop a radar system like below? | PAC

Which of the statement you can describe about MVC architecture styles? | MVC is now a very popular archiecture style

Which style of architecture are often applied in traditional programming? | main-subroutine

Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which task should not be the first activity of software architects when the software project start? | Proposing one architecture for software design

Which task should not be the first activity of software architecture | Collecting project requirment

Which tool can be used to describe an architecture style? | "4+1" view model

Who is NOT stakeholders of logical view | System Admin

Who is responsible for proposing a concrete architecture that best supports the detailed design and implementation of a specific project? | Software architect

You will apply the batch sequential architecture when? | Developing a system where intermediate file is a sequential access file.

You will apply the batch sequential architecture when? | [A] Developing a system where intermediate file is a sequential access file.

\_\_\_\_\_\_ is a deployable software package that can provide services to its clients. | Component

\_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal component and the outside world. | Interoperability

\_\_\_\_\_\_\_\_\_ is an example of SOA architecture. | Web service

\_\_\_\_\_\_\_is the most commonly distributed system architecture | Client-server model

a.Client-server

a.Supports multiple independent agents

b.Hierarchical structure

b.Scalability

c.Broker

c.Supports multiple views

connected through a communications network. | distributed system

d.Loose-coupling of modules

d.SOA

the following image is an example of one of architecture style below. Which is the best choice?|Multi-tier architecture style

the key point of the interaction oriented software architectures is\_\_\_Which is the best answer?|in the separation of user interactions from data abstraction and business data processing

the multiplicity is describe in | class diagram

which is an advantage of client-server architecture?|reusability of server components

which of the following attribite related to error tolerance and availability?|reliability

which of the following is not a benefit of component architecture|performance

which of the following is the advantage of broker architecture|changeability and extensibility

which of the following is the main motivation of component-based architecture?|component security

::U01-Q048::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

::U01-Q049::Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as the topology of the \_\_\_\_\_\_\_\_\_\_ structure | dynamic

::U01-Q050:: \_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

::U01-Q051::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | refinement of abstractions.

::U01-Q052::\_\_\_\_\_\_\_\_\_\_ is the most traditional process for designing software architectures. | Waterfall

::U01-Q053::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

::U01-Q054::Which kind of UML diagram is a snapshot of class diagram at runtime ? | Object diagram

::U01-Q055::Which is static diagram? | All of the others

::U01-Q056::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

::U01-Q057::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- | composition

::U01-Q058:: The open-closed principle is: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_. | extension/modification

::U01-Q059::Select the features of OO methodology? | Inheritance

::U02-Q001::Select the correct statement about pipe/filter architecture | There are two types of filters: active and passive.

::U02-Q002::The \_\_\_\_\_\_\_\_\_\_\_\_ software architecture style views the entire software system as | Data flow

::U02-Q003::Which is NOT a style of data-centered architectures? | All of the others

::U02-Q004::Select the type of data-flow architectures that is suitable for the embedded system | None of the others

::U02-Q005::Select the applicable domains of repository architecture | None of the others

::U02-Q006::Which is NOT a benefits of pipe and filter architecture | Overhead of data transformation among filters

::U02-Q007::How many ways to make data flow in pipe and filter architecture? | 3 ways: push only/ pull only/ push and pull

::U02-Q008::In \_\_\_\_\_\_\_\_\_\_\_, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | batch sequential architecture

::U02-Q009::One of benefit of data repository system is each subsystem can be a stand-alone program working on input data and producing output data. {F}

::U02-Q010::There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

::U02-Q011::The data store in the repository architecture is \_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive/active

::U02-Q012::The data store in the blackboard architecture option is active, and its clients are passive. {T}

::U02-Q013::Many applications designed in the process-control architecture include knowledge-based AI systems, voice and image recognition systems, security systems, business resource management systems. {T}

::U02-Q014::Select design pattern which relate to data repository architecture | All of the others

::U02-Q015::Select partition in blackboard architecture

::U02-Q016::Which is NOT style of hierarchial architecture? | event-based

::U02-Q017::Which style of architecture are often applied in traditional programming? | main-subroutine

::U02-Q018::Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | master-slave

::U02-Q019::Virtual machine architecture is used for the software system where reliability is critical.{F}

::U02-Q020::Select the correct order from upper layer to lower layer of SOAP protocol, an example of layerer architecture | SOAP XML HTML TCP/IP

::U02-Q021::Component-based technology is a suitable technology to implement layered architecture. {T}

::U02-Q022::Select the disadvantage of virtual machine architecture | Slow execution of the interpreter due to the interpreter nature

::U02-Q023::Select the other name of implicit asynchronous communication software | Observer pattern

::U02-Q024::A message queue is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture between message senders and message receivers

::U02-Q025::Select the partition of nonbuffered event-based implicit invocation architecture

::U02-Q026::Which are the benefits of nonbuffered event-based implicit invocation architecture | All of the others

::U02-Q027::In nonbuffered event-based implicit invocation architecture, there is higher dependency between event sources and their listeners than in message queue-based or message topic-based implicit invocation.{T}

::U02-Q028::Select the partition of nonbuffered event-based implicit invocation architecture | All of the others

::U02-Q029::A P2P messaging architecture is composed of \_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_ , and \_\_\_\_\_\_\_\_.

::U02-Q030::The publish-subscribe messaging architecture is a \_\_\_\_\_\_\_\_ architecture where publisher clients send messages to a message topic that acts like a | hub-like

::U01-Q001::The outcome of the software design phase is | SDD

::U01-Q002::The following is a sample outline of SDD based on IEEE 1016 | Attributes

::U01-Q003::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as | The topology of the static structure

::U01-Q004::Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as | The topology of the dynamic structure

::U01-Q005::Which of the followings are not the key components of an architectural style? | All of the others

::U01-Q006::Which of the following are considered as Business attributes? | All of the others

::U01-Q007::Which of the following attributes are considered as business attributes? | None of the others

::U01-Q008::Perform trade-off analysis on quality attributes and other non-functional requirements before design phase.{F}

::U01-Q009::Data Flow Diagrams (DFD), and State Transition Diagrams (STD) are widely used in software design.{F}

::U01-Q010::Which of the following notations is not used to support the logical view? | Deployment diagram

::U01-Q011::The stakeholders of physical view are? | System Admin

::U01-Q012::Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_ diagrams. | Sequence diagram

::U01-Q013::A component in Component diagram represents | Deployed reusable binary

::U01-Q014::Which diagrams are used in logical view? | All of the others

::U01-Q015::Who is NOT stakeholder of the logical view ? | System Admin

::U01-Q016::The multiplicity is described in | Class diagram

::U01-Q017::The stakeholders of Development view can be

::U01-Q018::Concurrency is described in | Activity diagram

::U01-Q019::Which UML diagrams are often used to support development view?

::U01-Q020::Typical OO languages include the following: | All of the others

::U01-Q021::A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public operations of classes are examined

::U01-Q022::In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | "Customer:Joe" represents an object named "Joe" whose class is "Customer"

::U01-Q023::Which of the following is true? | in UML Sequence Diagram both branches and loops can be specified

::U01-Q024::Which of the following is used to describe the life-cycle of an object? | state machine diagram

::U01-Q025::Public interface of a class consists of the following: | public attributes and public operations

::U01-Q026::Tight coupling is more appropriate than loose coupling in the following application scenario: | asynchronous call-back

::U01-Q027::A class is said to be cohesive if the following is true: | it has one clearly defined responsibility

::U01-Q028::To achieve loose coupling, which of the following can be done: | reduce cross-dependency among classes

::U01-Q029::Open-Close principle requires that a system should be open to extension but close to modification. This implies the following: | new functions should not be achieved by modifying the existing code

::U01-Q030::OO paradigm does not imply the following: | smarter artificial intelligence of software systems

::WT-Q001::Identify the wrong pair of symbol-visibility scope

::WT-Q002::Which of the following is not valid in the context of Component Diagrams? | initial node, final node

::WT-Q003::Identify which of the following modeling element is not associated with Activity Diagrams | associations

::WT-Q004::What are the two broad categories of diagrams in UML 2.0? | Structural and Behavioral

::WT-Q005::Which one of the following is not one of standard stereotype in Deployment Diagram? | processor

::WT-Q006::Which of the following is not a valid type of message arrow in sequence diagram? | Activation Message

::WT-Q007::Which of the following relationship is not part of package diagram? | Export

::WT-Q008::A class diagram can be used to model following things except | Depicting the interaction between domain entities

::WT-Q009::Identify which of the following modeling element is not associated with Use case Diagrams | Aggregate relationship

::WT-Q010::Which of the following is used to enclose a parameter's multiplicity? | []

::WT-Q011::In the most general sense a component is a modular building block for computer software. | True

::WT-Q012::In the context of object-oriented software engineering a component contains | set of collaborating classes

::WT-Q013::In traditional software engineering modules must serve in which of the following roles? | All of the above

::WT-Q014::Software engineers always need to cerate components from scratch in order to meet customer expectations fully. | False

::WT-Q015::Which of the following is not one of the four principles used to guide component-level design? | Parsimonious Complexity Principle

::WT-Q016::The use of stereotypes can help identify the nature of components at the detailed design level. | True

::WT-Q017::Classes and components that exhibit functional, layer, or communicational cohesion are relatively easy to implement, test, and maintain. | True

::WT-Q018::Software coupling is a sign of poor architectural design and can always be avoided in every system. | False

::WT-Q019::In component design elaboration requires which of the following elements is NOT described in detail? | Algorithms

::WT-Q020::Which of these is a graphical notation for depicting procedural detail? | flowchart

::U05-Q005::Select the incorrect statement | None of the others

::U06-Q005::Select the incorrect statement | The facts or hypotheses are stored in the knowledge source component of a blackboard system.

::U07-Q005::Select the incorrect statement | The callback method is typically used in a main-subroutine architecture.

::U08-Q005::Select the correct statement | All of the others

::U02-Q025::What's the availability of a system that crashes daily and takes 4 hours to restore when it does? | 86%

::U03-Q025::Which kind of UML digram is described in image below? | Activity Diagram

::U04-Q025::Select incorrect statement about relationships between actor in use-case diagram below

::U05-Q025::When a number of use cases have common behavior, this behavior can bemodeled in a single use case that is \_\_\_\_\_\_\_\_\_\_ by the other use cases. | included

::U06-Q025::In UML class diagram, a class is drawn with a rectangle,often divided into \_\_\_\_\_\_\_\_\_\_\_\_\_. | 3 compartments : name compartment,attributes compartment, operations compartment

::U07-Q025::In UML class diagram, a class is drawn with a rectangle,often divided into \_\_\_\_\_\_\_\_\_\_\_\_\_. | 3 compartments : name compartment,attributes compartment, operations compartment

::U08-Q025::Select the correct Java implementation of attribute "number\_of\_invoice" in class diagram | static private int number\_of\_invoices;

::U09-Q025::Select the relationship between "Window" class and "Button" class in class diagram below | Composition

::U10-Q025::Select incorrect declaration based on class diagram below

::U11-Q025::Select the kind of UML digram in image below | Interaction overview diagram

::U12-Q025::Select the architecture type of diagram below | All of the others

::U01-Q017:: \_\_\_\_\_\_\_\_\_ is a critical examination of software code or other artifacts identify and remove problems directly, without resorting to execution. | Software inspection

::U02-Q017::Which is NOT a top-level characteristic of software quality in ISO-9126? | None of the others

::U03-Q017:: Select QA-activities that prevent certain types of faults from being injected into the software. | Defect prevention

::U04-Q017:: Who involve in defect management? | All of the others

::U05-Q017::Select QA activitives that should be carried out before carrying out the regular QA activities. | Pre-QA activities

::U08-Q017::Select the simplest form of testing | Random testing

::U09-Q017::Which is NOT a general problems with input domain partitions? | Too many test cases for each input sub-domain

::U010-Q017::Select static elements in FSM | States and states transition

::U011-Q017::Select the third step in Control Flow Testing | Sensitize the paths or the test cases by deciding the input values.

::U012-Q017::Which kind of testing tests the overall system operations as a whole, typically from a customer�s perspective? | System testing

::U013-Q017::Software inspection deals directly with \_\_\_\_\_\_\_\_\_ instead of with failures | faults

::U014-Q017::Select phases of software development in that defect prevention can be applied. | All of the others

::U015-Q017::Testing shows the \_\_\_\_\_\_\_\_\_\_ of defects,not their \_\_\_\_\_\_\_\_\_\_\_\_\_. | presence/absence

::U016-Q017::Within \_\_\_\_\_\_\_\_\_ techniques, we can focus either on the accident prevention before accidents happen, or focus on damage control or reduction after accidents happen. | failure containment

::U017-Q017::Which QA results are easiest to interpret and can be used directly for defect removal? | Inspection

::U018-Q017:Product characteristics include | General expectations of the target users

::U019-Q017::Select quality assessment model that provides a single estimate of overall product quality | Overall model

::U021-Q017:: The potential for undesirable consequences of defects in the software including schedule delays, cost overruns, and highly defective software products, is usually referred to as \_\_\_\_\_\_\_. | risk

::U01-Q022::In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | �Customer:Joe� represents an object named �Joe� whose class is �Customer�

::U01-Q017::Select incorrect statement | Software architecture is a static software structure description

::U02-Q017::Select incorrect statement | Deployment decisions should be reflected in early architecture designs.

::U03-Q017::The \_\_\_\_\_\_\_ view describes installation, configuration, and deployment of the software application. | physical

::U04-Q017::A part involved in an \_\_\_\_\_\_\_\_\_\_\_\_ relationship should be born and terminate at the same moment as its owner. | aggregation

::U05-Q017::Select incorrect statement: | None of the others

::U06-Q017::Select incorrect statement about blackboard architecture style: | Rule-based knowledge is installed in the blackboard component of the blackboard architecture.

::U07-Q017::Select example(s) of virtual machine | All of the others

::U08-Q017::Select components in Point-to-Point Messaging System | Message sender, message receiver, message queue

::U09-Q017::The MVC and PAC architectures are \_\_\_\_\_\_\_\_\_\_\_ software architecture. | interaction-oriented

::U10-Q017::Select incorrect statement about components in broker architecture | Skeleton is client-side proxy which mediates between the client and the broker and provides additional transparency between them.

::U11-Q017::Select correct statement about component-based architecture | A component architecture can be derived from use case analysis and business concept diagrams.

::U12-Q017::Select incorrect statement | Batch sequential architecture is generally more time efficient than pipe and filter.

::U13-Q017::Select correct statement | The MVC model suggests the separation of the user interface from the logic of the software system.

::HN-Q01::The purpose of the software analysis phase is to produce a software requirement specification | True

::HN-Q02::Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usability

::HN-Q03::Choose the incorrect statement. | The architecture design must cover the software's functional only. It shouldn't cover nonfunctional requirements.

::HN-Q04::In an architecture styles, which of the following is the components that describe the advantages and disadvantages of the chosen structure? | Attributes

::HN-Q05::Which of following is NOT a Software architect's task? | Perform needs evaluation and market trends

::HN-Q06::At software deployment time, the software element are \_\_\_\_ | The executable version of the project modules and files

::HN-Q07::At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

::HN-Q08::In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

::HN-Q09::According to the classification on synchronization mode of connector, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | Blocking

::HN-Q10::Which software design structure you will use if you want to report software architecture and staff allocation to your manager? | Management Structure

::HN-Q11::Which is the following diagram called? | Package diagram

::HN-Q12::Which of the following is the correct description of composition relationship in a class diagram? | (3)

::HN-Q13::The view, which takes care of the concurrency and synchronization issues between subsystems, is which of the following? | Process View

::HN-Q14::In UML 2.0, Which diagram describes time order of messages passed between objects in timeline? | Sequence Diagram

::HN-Q15::Use-case diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

::HN-Q16::(1) is better because of which following? [IMG16] | Easy extension

::HN-Q17::Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

::HN-Q18::Which of the following is the correct order of Object Oriented design steps? | 1 -> 2 -> 4 -> 3

::HN-Q19::What is CORRECT statement about Polymorphism? | It refers to the ability of an object to behave differently and assume different forms based on its inheritance hierarchy.

::HN-Q20::Three Object Oriented Principles are which of following? | Encapsulation, Inheritance, Polymorphism

::HN-Q21::In Data Flow architecture, the architecture styles are classified as \_\_\_ | Batch Sequential, Pipe & Filter, Process Control

::HN-Q22::In which architecture style, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | Batch sequential architecture

::HN-Q23::Let's assume a new order arrives in our enterprise in the form of a message. One requirement may be that the message is encrypted to prevent eavesdroppers from spying on a customer's order. | Pipe and Filter

::HN-Q24::Which is the INCORRECT statement about a filter? | A Filter need to wait for batched data as a whole.

::HN-Q25::The following Java code fragment is a sample code of which architecture style? | Batch Sequential architecture

::HN-Q26::Data Integrity is a benefit of which architecture style below? | Repository architecture

::HN-Q27::Which of the following is NOT CORRECT about Knowledge Source in Blackboard architecture style? | It always contributes an ultimate solution.

::HN-Q28::Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

::HN-Q29::What is the CORRECT statement about virtual repository? | A virtual repository is built up on the top of multiple physical repository

::HN-Q30::Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | Forward reasoning

::HN-Q31::In 3-layers architecture, which layer the business process should be implemented in? | Processing layer

::HN-Q32::In the master-slave architecture, the slaves may perform \_\_\_\_. (Choose the best one to fill the blank) | All of the others

::HN-Q33::\_\_\_\_\_ separates a programming language or application environment from a execution platform. Which is the best choice to fill into the blank? | A virtual machine

::HN-Q34::With an application that has clean divisions between core services, critical services, user interface services. | Layered architecture

::HN-Q35::Which architecture style is used for the software system where the reliability is critical? | Master-Slaves architecture

::HN-Q36::Which is the architecture style applied in Integrated Development Environment (IDE) tools? | Non-buffered Event-based architecture (1)

::HN-Q37::The diagram given below is the class diagram of the Event-based architecture style. | (1) : Event Source; (2) : Event Listener

::HN-Q38::Buffered Message-based architecture breaks a software system into 3 partitions, which of following partition is correct? | Message producers, Message consumers, Message service providers

::HN-Q39::When you are requested making a system having some processes which must be done concurrently. | Buffered Message-based Architecture style

::HN-Q40::Which is the CORRECT statement for PAC architecture? | PAC is an agent based hierarchical architecture

::HN-Q41::The architecture style representations below are \_\_\_\_. Which is the best choice? | (1) : MVC, (2) : HMVC

::HN-Q42::Which of the below description is a limitation of MVC architecture style? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

::HN-Q43::What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

::HN-Q44::The following architecture image is the presentation of which following? (Choose the best answer) | MVC Architecture

::HN-Q45::Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | Service-based > Component-based > Object-oriented > Functional-oriented

::HN-Q46::Which of the followings is a style of distributed architecture? | Service Oriented architecture

::HN-Q47::Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecture styles? (">" is better ) | Service-oriented > Broker > Client-Server

::HN-Q48::Which is a disadvantage of Client-Server Architecture? | Lack of heterogeneous infrastructure to deal with the requirement changes.

::HN-Q49::Which of the following is NOT a typical style of distributed architecture? | Repository architecture

::HN-Q50::Which of the following is the CORRECT statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions.

::HN-Q51::Which is the CORRECT statement about the following image? | The system consists of 3 components (A), (B) and (C), in which A and C use the services provided by B via "interface" and "interface 2" respectively.

::HN-Q52::Which of the following is a benefit of component-based architecture? | Reusability of components.

::HN-Q53::Which of the following is NOT a benefit of Component architecture | Easy find suitable available components to reuse.

::HN-Q54::Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

::HN-Q55::Which of the following attribute relates to hardware independence and installability? | Portability

::HN-Q56::The Architectural Decision Procedure includes following steps: | 2 -> 1 -> 3

::HN-Q57::The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

::HN-Q58::Interoperability refers to \_\_\_\_\_\_\_\_\_\_\_ | The universal accessibility and the ability to exchange data with internal components and the outside worl~

::HN-Q59::Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

::HN-Q60::When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

::U02-Q031::Which of the following is NOT benefit of pipe & filter? | Performance

::U02-Q032::Which of the following is NOT limitations of pipe & filter? | It supports only sequential execution.

::U02-Q033::Which is NOT a data type of variable in process control system ? | Output variable

::U02-Q034::Which of data flow architecture is commonly applied in embedded software system? | Process Control Architecture

::U02-Q035::Select types of data-centered software architecture

::U02-Q036::Which of the followings is NOT the benefit of repository architecture? | Concurrency

::U02-Q037::Which of the followings is a typical design domain of the blackboard architecture? | AI system

::U02-Q0038::The rule-based knowledge is installed in the \_\_\_\_\_\_\_\_\_\_\_ component of the blackboard architecture. | Knowledge source

::U02-Q039::Which of the followings is NOT built with hierarchy architecture? | N-Tiers architecture

::U02-Q040::The disadvantages of VM are | Additional overhead due to the new layer// Simulation for disaster working model //Execution of the interpreter

::U02-Q041::The application domain of the layered architecture is | All of the others

::U02-Q042::The advantage of the main-subroutine architecture are

::U02-Q043::Which of the following is NOT the typical design domain of the asynchronous architecture? | Hierarchical structure

::U02-Q044::The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers

::U02-Q045::Select the incorrect statement | Publish-subscribe messaging architecture uses message queue as a buffer.

::U02-Q046::Select the incorrect statement | A P2P messaging architecture includes: publisher, subcribers and message topic

::DP-001::\_\_\_\_\_ patterns are patterns whose sole purpose is to facilitate the work of creating, initializing, and configuring objects and classes. | Creational

::DP-002:: Which is creational pattern? | Prototype

::DP-003::Select the design pattern that separates object construction from its representation | Builder

::DP-004::\_\_\_\_\_\_\_\_\_ is a class in which only a single instance can exist | Singleton

::DP-006::Which is NOT a part in builder design pattern? | A factory helps us to centralize the creation of classes and types.

::DP-011::\_\_\_\_\_\_\_\_\_ are patterns whose sole purpose is to facilitate the work of algorithmic calculations and communication between classes. | Behavioral patterns

::DP-012::Which is NOT structural design patterns? | Adapter pattern

::DP-013::Which are components of Composite design pattern? | Component, Composite and Leaf

::DP-014::A \_\_\_\_ pattern allows requests to an object to exist as objects | command

::DP-015::The Adapter pattern has three important components: | Target, Adapter ,and Adaptee.

::DP-016::A \_\_\_\_\_\_\_\_\_\_\_\_ pattern is a group of algorithms encapsulated inside classes that are made interchangeable so the algorithm can vary depending on the class used. | strategy

::DP-017::Which is NOT structural design pattern? | Template

::DP-018::A \_\_\_\_\_\_\_\_\_\_ pattern allows grouping of subsystems behind a unified nterface to allow a central access point to these subsystems. | Facade

::DP-019::The \_\_\_\_\_\_\_\_\_\_ pattern is a useful pattern for making two different class types communicate in a similar manner. | Adapter

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class�s structure without changing the actual class. | Visitor

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class's structure without changing the actual class. | Visitor

::U01-Q014::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

::U01-Q015::8. Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as the topology of the \_\_\_\_\_\_\_\_\_\_ structure | dynamic

::U01-Q016:: \_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

::U02-Q014::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | refinement of abstractions.

::U02-Q015::\_\_\_\_\_\_\_\_\_\_ is the most traditional process for designing software architectures. | Waterfall

::U02-Q016::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

::U03-Q014::Which kind of UML diagram is a snapshot of class diagram at runtime ? | Object diagram

::U03-Q015::Which is static diagram? | All of the others

::U03-Q016::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

::U04-Q014::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- | composition

::U04-Q015:: The open-closed principle is: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_. | extension/modification

::U04-Q016::Select the features of OO methodology? | Inheritance

::U05-Q014::A process control system must have the following process control data: | All of the others

::U05-Q015::Process control software architecture belongs to \_\_\_\_\_\_\_\_\_\_\_\_ architecture style. | Data flow

::U05-Q016::There are two types of filters : \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_. | active and passive

::U06-Q014::\_\_\_\_\_\_\_\_\_\_ software architecture is characterized by a centralized data store that is shared by all surrounding software components. | Data-centered

::U06-Q015::There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | repository and blackboard

::U06-Q016::The rules are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system. | knowledge source

::U07-Q014::Data is passed as parameters to subroutines from callers. The ways to pass on parameter data are: | Pass by reference/Pass by value

::U07-Q015::\_\_\_\_\_\_\_\_\_\_\_ is used for the software system where reliability is critical. This is due to the replication (redundancy) of servers. | Master-slave architecture

::U07-Q016::A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture is built up on an existing system and provides a virtual abstraction, a set of attributes, and operations. | Virtual machine

::U08-Q014::A \_\_\_\_\_\_\_\_ messaging architecture is composed of message queues, senders, and receivers. | Point-to-Point Messaging

::U08-Q015::The \_\_\_\_\_\_\_\_\_\_ architecture is a hub-like architecture where publisher clients send messages to a message topic that acts like a | None of the others

::U08-Q016::A/An \_\_\_\_\_\_\_\_\_\_\_\_ can be specified in two | asynchronous implicit invocation communication

::U09-Q014::In MVC, the \_\_\_\_\_\_\_\_\_ manages the user input requests, controls the sequence of user interactions, selects desired views for output displays, and manages all initialization, instantiations, and registrations of other modules . | Controller

::U09-Q015::The MVC-I is a simple version of MVC architecture where the system is | Controller-View/Model

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in | PAC

::U10-Q014::The \_\_\_\_\_\_\_\_\_\_ is the most commonly distributed system architecture. | Client-server model

::U10-Q015::A \_\_\_\_\_\_\_\_\_\_ is a service that communicates with other services or clients via standard protocols and technologies such as SOAP, XML, and HTTP. | Web service

::U08-Q011:: Which of the following is not considered as event-driven? | Main-sub functions

::U08-Q012::Which of the following is NOT buffer-based? | Callback

::U08-Q013::The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions: \_\_\_\_\_\_\_\_ and . | event sources/event listeners

::U09-Q011::Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

::U09-Q012::Which of the following is typical design domain for the MVC architecture? | Web server site application

::U09-Q013::Which of following software system cannot be designed using PAC ? | Compiler

::U010-Q011:: In Client/Server architecture | All of the others

::U010-Q012::Select incorrect statement | JDBC is XML based

::U010-Q013::The benefit of the broker architecture | All of the others

::U011-Q011::Which is not correct way to use a component? | #include in C

::U011-Q012::Select correct statement(s) | All of the others

::U011-Q013::A \_\_\_\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well-defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

::U012-Q011::Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

::U012-Q012::Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

::U012-Q013::Which of the following is true? | All of the others

::U013-Q011::Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

::U013-Q012::Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

::U013-Q013::Which of the following is true? | All of the others

::U08-Q016::A/An \_\_\_\_\_\_\_\_\_\_\_\_ can be specified in two different modes: nonbuffered and buffered. | asynchronous implicit invocation communication

::U09-Q015::The MVC-I is a simple version of MVC architecture where the system is simply decomposed into two subsystems: the \_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_. | Controller-View/Model

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in addition to interactive requirements. | PAC

::U10-Q016::The broker architecture have many kind of subcomponents , that includes: | All of the others

::U11-Q014::A \_\_\_\_\_\_\_\_\_\_\_\_ is a deployable software package that can provide services to its clients. | component

::U11-Q015::Why use components? | All of the others

::U11-Q016::\_\_\_\_\_\_\_\_\_ is a higher level of abstract concept than class. A \_\_\_\_\_\_\_\_\_ may consist of many related classes stored and deployed in the same binary assembly. | Component

::U12-Q014::Select incorrect statement | Homogeneous architecture styles are used to combine benefits of multiple styles and to ensure quality and appropriateness.

::U12-Q015::Quality attributes are an essential part of the \_\_\_\_\_\_\_\_\_\_\_ of a system. | nonfunctional requirements

::U12-Q016::Select the correct statements | All of the others

::U13-Q014::Select correct statement | All of the others

::U13-Q015::From the user's viewpoint, the first impression of a software system is its \_\_\_\_\_\_\_\_\_\_\_. | user interface

::U13-Q016::Which of the following is NOT true for implementing the separation of the user interface from the logic of the software system? | Decrease reusability

::U01-Q021::Which is not a typical quality attribute tradeoff pairs? | Tradeoff between usability and reliability

::U02-Q021::Good software architectural designs are based on the recursive application of refinement of abstractions. | True

::U03-Q021::Component diagrams are used in the scenario view. | False

::U04-Q021::Aggregation relationship requires that the parts of an object should have exactly the same life-span as the object. | False

::U05-Q021::The active filter in pipe & filter | Pulls in data and push out the transformed data (pull/push)

::U06-Q021::Explicit notification is often used in the blackboard architecture. | False

::U07-Q021::The callback method is typically used in a main-subroutine architecture. | False

::U08-Q021::Multiple consumers consume a message on a message queue. | False

::U09-Q021::The data in the MVC is active.The data in PAC is passive | True

::U10-Q021::The tier connected to back-end tier in multi-tier architecture is | Enterprise tier

::U11-Q021::Each component must have its provided ports and required ports. | False

::U12-Q021::In a heterogeneous architecture, each component should not have mixed architecture. | False

::U13-Q021::A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | True

::U01-Q018::Select incorrect statement | The goal of software design is to build a model that meets functional requirements only.

::U02-Q018::Which is NOT an attribute of static structure connectors? | Multiplicity

::U03-Q018::Which view does not belong to 4+1 views model? | Scenario view

::U04-Q018::Parts involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationship do not have to share the same lifespan as the owner. | aggregation

::U05-Q018::Compilers are the typical examples of \_\_\_\_\_\_\_\_\_\_ software architectures style. | data flow

::U06-Q018::The data store in the repository architecture is \_\_\_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive/active

::U07-Q018::Select correct statement about modules in hierarchical software architecture | A lower-level module provides services to its adjacent upper-level modules.

::U08-Q018::The buffered message-based software architecture breaks the software system into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | three partitions: message producers, message consumers, and message service providers

::U09-Q018::Two major style categories of interaction-oriented architectures are: | Presentation-Abstraction-Control and Model-View-Controller

::U10-Q018::Select the basic form of multi-tier architecture | Client-server architecture

::U11-Q018::Select incorrect statement | None of the others

::U12-Q018::The general idea of \_\_\_\_\_\_\_\_\_ is to evaluate candidate architecture designs using a collection of scenarios. | AAM (Software Architecture Analysis Method)

::U13-Q018::Select correct statement(s) | All of the others

::U01-Q051::\_\_\_\_\_\_\_\_\_\_ refers to the degree to which the system facilitates the establishment of test cases. It usually requires a complete set of documentation accompanied with system design and implementation. | Testability

::U02-Q051:: \_\_\_\_\_\_\_\_\_ refers to the ability to adapt to an increase of user requests volume. It disfavors bottlenecks in system design. | Scalability

::U03-Q051::Based on the connector's \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, we can classify all connectors into two categories: | synchronization mode

::U04-Q051::Based on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a connector may be classified as signature-based or protocol-based. | implementation type

::U05-Q051::For following task, state whether it is relevant for analysis (A) or for design (D) or for both (AD): "Decide a software architecture for the given application" | D

::U06-Q051::For following task, state whether it is relevant for analysis (A) or for design (D) or for both (AD): "Develop Use Case Diagrams" | A

::U07-Q051::The pros of the main-subroutine architecture are | a,c

::U08-Q051::Which of the following is not the benefit of layered architecture? | Runtime performance

::U09-Q051::Which are components of Composite design pattern? | Component, Composite and Leaf

::U10-Q051::Which of the following is NOT the benefits of the MVC architecture? | Supports multiple independent agents

::U11-Q051::The Adapter pattern has three important components: | Target, Adapter ,and Adaptee.

::U12-Q051::Which two parts in a PAC agent can't talk each other directly? | Presentation - Abstraction

::U01-Q027::Which is NOT an implementation attribute? | Performance

::U02-Q027::Select incorrect statement | Waterfall is the better process for designing software architectures.

::U03-Q027::Which is NOT UML behavior description diagrams? | Class diagram

::U04-Q027::Select incorrect statement | Composition relationship is represented by hollow diamond arrow.

::U05-Q027::There are data sharing (shared data) among all sub-systems in a data flow system. | False

::U06-Q027::Which of the followings is NOT the main benefit of repository architecture? | concurrency

::U07-Q027::Which of the followings is NOT the main benefit of hierarchical architecture? | concurrency

::U08-Q027::Which of the following is the main benefit of asynchronous architecture? | Loose coupling of modules

::U09-Q027::Which of the following is NOT the main benefit of the MVC architecture? | Supports multiple independent agents

::U10-Q027::Which of the followings is NOT the main benefit of distributed architecture? | Supports multiple views

::U12-Q027::It is not always possible to evaluate a quality attribute quantitatively. However, we can evaluate it qualitatively and then define metrics to map qualitative evaluation into numbers. | True

::U13-Q027::Design user interfaces are the task of the software designers and developers, have nothing with the software users. | False

::U01-Q031::Which is the input of the software design phase? | SRS

::U01-Q032::\_\_\_\_\_\_\_\_\_\_\_ represents the whole/part relationship between classes. In \_\_\_\_\_\_\_\_\_\_, the parts of a class have the same | Composition

::U01-Q033::In runtime quality attribute, \_\_\_\_\_\_\_\_\_ refers to increasing a systems efficiency with regard to response time, | Performance

::U01-Q034::Which is NOT a implementation quality attribute? | Security

::U01-Q035::Who is responsible for proposing a concrete architecture | Software architect

::U01-Q036::Select software element in runtime dynamic structure | Sessions or transactions

::U01-Q037::Which is NOT a type of software architecture? | None of the others

::U01-Q038::According to connector active time, we can classify connector into \_\_\_\_\_\_\_\_\_\_\_\_\_

::U01-Q039::Select the diagram is not used to support the logical view | None of the others

::U01-Q040::Which is NOT UML behavior description diagram? | Component diagrams

::U01-Q041::A component in Component diagram represents | Deployed reusable binary

::U01-Q042::Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_\_\_\_\_\_. | Sequence diagram

::U01-Q043::OO principles do not include the following | concurrency

::U01-Q044::Which of the following keywords in the C# language is not an example of its support of encapsulation? | partial

::U01-Q045::Polymorphism implies the following | All of the above

::U02-Q040::The disadvantages of VM are | Additional overhead due to the new layer

::U02-Q044::The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers //decoupling

::U01-Q025::Select incorrect statement about design guideline

::U08-Q005::Select the correct statement | All of the others | Software architecture is a static software structure description

::DP-Q20::Identify the design pattern:<br/>Provide a surrogate or placeholder for another object to control access to it. | Proxy

::DP-Q21::Identify the design pattern:<br/>Define the skelton of an algorithm in an operation, deferring some steps to subclasses. | Template method

::DP-Q22::Identify the design pattern:<br/>Define one to many dependency between objects so that when one object change state, all its dependent are notified and updated automatically. | Observer

::DP-Q23::Identify the design pattern:<br/>Define a family of algorithms, encapsulate each one, and make them interchangeable. It lets the algorithm vary independently from clients that use it. | Strategy

::DP-Q24::Identify the design pattern:<br/>Attach additional responsibilities to an object dynamically.It provides a flexible alternative to subclassing for extending functionality. | Decorator

::DP-Q25::Identify the design pattern:<br/>Provides a way to access the elements of an aggregate object sequentially without exposing its underlying representation. | Iterator

::DP-Q26::Identify the design pattern:<br/>Provide an unified interface to a set of interfaces in a subsystem.It define a higher level interface that makes the subsystem easier to use | Facade

::DP-Q27::Identify the design pattern:<br/>Ensure a class has only one instance, and provide a global access point to it. | Singleton

::DP-Q28::Identify the design pattern:<br/>Encapsulate a request as an object, there by letting you parametrize clients with different requests, queue or log requests, and support undoable operation. | Command

::DP-Q29::A design pattern is: | a solution to a common problem in object-oriented programming

::DP-Q30::Which of the following programming languages is best suited to design patterns? | Java

::DP-Q31::Which of the following techniques is a direct benefit of design patterns? | Faster coding

::DP-Q32::Which of the following matters least in the use of a design pattern? | The source code that implements the pattern

::DP-Q33::Design pattern is to program as: | Blueprint is to building

::DP-Q34::What does GOF stand for in GOF Patterns ? | Gang of Four

::DP-Q35::Which of the following patterns allows multiple objects an opportunity to process a request without guaranteeing that any of them must process it? | Chain of Responsibility

::DP-Q36::Suppose you need to create new objects by copying an existing object. Which of the following patterns would you most likely use? | Prototype

::DP-Q37::Suppose you need to define an interface for creating instances of several related abstract classes without specifying their concrete subclasses. Which of the following patterns would you most likely use? | Abstract Factory

::DP-Q38::Suppose you need to define an abstract interface for creating a complex object from its component parts, but allow different subclasses to create different representations of the parts? Which of the following patterns would you most likely use? | Builder

::DP-Q39::The \_\_\_\_\_\_\_\_\_\_ pattern has two primary criteria for applicability:</br> | Singleton

::DP-005:: Select design pattern in this code below | Factory

::DP-007:: Below is implementation of Singleton design pattern. | private

::DP-008::Below is implementation of Singleton design pattern. | private

::DP-009::Below is implementation of Singleton design pattern. | static

::DP-010::Which design pattern is used in these code below? | Prototype

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class's structure without changing the actual class. | Visitor | static

::U07-Q051::The pros of the main-subroutine architecture are | a. Top-down refinement design c. DFD mapping

::U11-Q027::Which of the followings is a benefit of component architecture?

::U01-Q005::Select the correct statement

::U02-Q005::Select the correct statement

::U03-Q005::Select the incorrect statement

::U04-Q005::Select the incorrect statement

::U13-Q017::Select correct statement | The MVC model suggests the separation of the user interface from the logic of the software system. | d. All of the others

::U14-Q002::Select the incorrect statement | A component�s granularity has two dimensions, namely domain-independent and domain-specific.

::U01-Q008::Select the topology in which the system composition configuration as layered, flattened, star typed, centralized, or distributed{ | The topology of the static structure

::U01-Q011::To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case?{ | Tradeoff between scalability and performance

::U01-Q014::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure{ | static

::U01-Q016::\_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system.{ | Cost

::U01-Q018::Select incorrect statement{ | The goal of software design is to build a model that meets functional requirements only.#

::U02-Q009::Which kind of object is represented by a component in component diagram?{ | Deployed reusable binary

::U02-Q012::[html]Select correct statement{ | Static connectors at development time have attributes including direction, synchronization and sequence.

::U02-Q014::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | refinement of abstractions.

::U02-Q016::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_.{ | source code

::U02-Q018::Which is NOT an attribute of static structure connectors?{ | Multiplicity#

::U03-Q011::[html]Which kind of UML diagram is an event-oriented diagram and widely used for embedded systems and device software analysis and design?{ | State diagram

::U03-Q013::[html]Which is the most suitable diagram to describe the lifecycle of objects ?{

::U03-Q015::Which is static diagram?{ | All of the others

::U03-Q016::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system.{ | UML

::U03-Q018::Which view does not belong to 4+1 views model?{ | Scenario view#

::U04-Q012::[html]Select correct statement about inheritance{ | Class can inherit more than one interface

::U04-Q014::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- position.{

::U04-Q015::The open-closed principle is\: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_.{ | extension/modification

::U04-Q017:A part involved in a/an\_\_\_\_\_\_\_\_\_\_\_\_ relationship should be born and terminated at the same moment as its owner.{ | composition

::U04-Q018::Parts involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationship do not have to share the same lifespan as the owner.{

::U05-Q013::Select correct statement{ | Concurrency is not supported in batch-sequential architecture

::U05-Q014::A process control system must have the following process control data\:{ | All of the others

::U05-Q015::Process control software architecture belongs to \_\_\_\_\_\_\_\_\_\_\_\_ architecture style.{ | Data flow

::U05-Q017::[html]In which architecture style, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation.{

::U05-Q018::Compilers are the typical examples of \_\_\_\_\_\_\_\_\_\_ software architectures style.{ | data flow#

::U06-Q011::Which of the followings is NOT the benefit of repository architecture?{

::U06-Q013::The facts or hypothesis are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.{ | Blackboard

::U06-Q015::There are two categories of data-centered architecture\: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | repository and blackboard

::U06-Q016::The rules are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.{ | knowledge source

::U06-Q018::The data store in the repository architecture is \_\_\_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_.{ | passive/active#

::U07-Q012::[html]A \_\_\_\_\_\_\_\_\_\_ architecture is built up on an existing system and provides a virtual abstraction, a set of attributes, and operations.{ | Virtual Machine

::U07-Q014::Data is passed as parameters to subroutines from callers. The ways to pass on parameter data are\:{ | Pass by reference/Pass by value

::U07-Q015::\_\_\_\_\_\_\_\_\_\_\_ is used for the software system where reliability is critical. This is due to the replication (redundancy) of servers.{ | Master-slave architecture

::U07-Q016::A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture is built up on an existing system and provides a virtual abstraction, a set of attributes, and operations.{ | Virtual machine

::U07-Q018::Select correct statement about modules in hierarchical software architecture{ | A lower-level module provides services to its adjacent upper-level modules.#

::U08-Q013::[html]The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions\: \_\_\_\_\_\_\_\_ and\_\_\_\_\_\_\_.{ | event sources/event listeners

::U08-Q014::A \_\_\_\_\_\_\_\_ messaging architecture is composed of message queues, senders, and receivers.{ | Point-to-Point Messaging

::U08-Q015::The \_\_\_\_\_\_\_\_\_\_ architecture is a hub-like architecture where publisher clients send messages to a message topic that acts like a bulletin board.{ | None of the others

::U08-Q017::Select components in Point-to-Point Messaging System{ | Message sender, message receiver, message queue#

::U08-Q018::The buffered message-based software architecture breaks the software system into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | three partitions\: message producers, message consumers, and message service providers#

::U09-Q011::Which of the following is NOT the benefit of the MVC architecture?{ | Supports multiple independent agents

::U09-Q012::Which of the following is typical design domain for the MVC architecture?{

::U09-Q014::In MVC, the \_\_\_\_\_\_\_\_\_ manages the user input requests, controls the sequence of user interactions, selects desired views for output displays, and manages all initialization, instantiations, and registrations of other modules .{

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in addition to interactive requirements.{ | PAC

::U09-Q018::Two major style categories of interaction-oriented architectures are\:{ | Presentation-Abstraction-Control and Model-View-Controller#

::U10-Q009::[html]Select the type of application which is an example of SOA architecture.{ | Web service#

::U10-Q010::[html]Which of the following is a typical style of distributed architecture?{ | All of the others#

::U10-Q015::A \_\_\_\_\_\_\_\_\_\_ is a service that communicates with other services or clients via standard protocols and technologies such as SOAP, XML, and HTTP.{

::U10-Q016::The broker architecture have many kind of subcomponents , that includes\:{ | All of the others

::U10-Q018::Select the basic form of multi-tier architecture{ | Client-server architecture#

::U11-Q010::How many categories of connections between components in UML component?{

::U11-Q014::A \_\_\_\_\_\_\_\_\_\_\_\_ is a deployable software package that can provide services to its clients.{ | component

::U11-Q016::\_\_\_\_\_\_\_\_\_ is a higher level of abstract concept than class. A \_\_\_\_\_\_\_\_\_ may consist of many related classes stored and deployed in the same binary assembly.{ | Component

::U11-Q018::Select incorrect statement{ | None of the others#

::U12-Q014::Select incorrect statement{ | Homogeneous architecture styles are used to combine benefits of multiple styles and to ensure quality and appropriateness.

::U12-Q016::Select the correct statements{ | All of the others

::U12-Q018::The general idea of \_\_\_\_\_\_\_\_\_ is to evaluate candidate architecture designs using a collection of scenarios.{ | AAM (Software Architecture Analysis Method)#

::U13-Q014::Select correct statement{ | All of the others

::U13-Q016::Which of the following is NOT true for implementing the separation of the user interface from the logic of the software system?{ | Decrease reusability

::U13-Q018::Select correct statement(s){ | All of the others#

::U01-Q008::Select the topology in which the system composition configuration as layered, flattened, star typed, centralized, or distributed{

::U01-Q011::To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case?{

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::U01-Q018::Select incorrect statement{

::U02-Q009::Which kind of object is represented by a component in component diagram?{

::U02-Q012::[html]Select correct statement{

::U02-Q014::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{

::U02-Q016::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_.{

::U02-Q018::Which is NOT an attribute of static structure connectors?{

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::U04-Q015::The open-closed principle is\: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_.{

::U04-Q017::[html]<span><font color\="\#000000">A part involved in a/an <span></span>\_\_\_\_\_\_\_\_\_\_\_\_ relationship should be born and terminated at the same moment as its owner.</font></span>{

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::U07-Q018::Select correct statement about modules in hierarchical software architecture{

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::U11-Q016::\_\_\_\_\_\_\_\_\_ is a higher level of abstract concept than class. A \_\_\_\_\_\_\_\_\_ may consist of many related classes stored and deployed in the same binary assembly.{

::U11-Q018::Select incorrect statement{

::U12-Q014::Select incorrect statement{

::U12-Q016::Select the correct statements{

::U12-Q018::The general idea of \_\_\_\_\_\_\_\_\_ is to evaluate candidate architecture designs using a collection of scenarios.{

::U13-Q014::Select correct statement{

::U13-Q016::Which of the following is NOT true for implementing the separation of the user interface from the logic of the software system?{

::U13-Q018::Select correct statement(s){

::DP-Q24::Identify the design pattern:<br/>Attach additional responsibilities to an object dynamically.It provides a flexible alternative to subclassing for extending functionality.|Decorator

::DP-Q25::Identify the design pattern:<br/>Provides a way to access the elements of an aggregate object sequentially without exposing its underlying representation.| Iterator

::DP-Q26::Identify the design pattern:<br/>Provide an unified interface to a set of interfaces in a subsystem.It define a higher level interface that makes the subsystem easier to use|Facade

::DP-Q27::Identify the design pattern:<br/>Ensure a class has only one instance, and provide a global access point to it.|Singleton

::DP-Q28::Identify the design pattern:<br/>Encapsulate a request as an object, there by letting you parametrize clients with different requests, queue or log requests, and support undoable operation.|Command

::DP-Q29::A design pattern is:|a solution to a common problem in object-oriented programming

::DP-Q30::Which of the following programming languages is best suited to design patterns? |Java

::DP-Q31::Which of the following techniques is a direct benefit of design patterns?|Faster coding

::DP-Q32::Which of the following matters least in the use of a design pattern?|The source code that implements the pattern

::DP-Q33::Design pattern is to program as:|Blueprint is to building

::DP-Q34::What does GOF stand for in GOF Patterns ?|Gang of Four

::DP-Q35::Which of the following patterns allows multiple objects an opportunity to process a request without guaranteeing that any of them must process it? |Chain of Responsibility

::DP-Q36::Suppose you need to create new objects by copying an existing object. Which of the following patterns would you most likely use? |Prototype

::DP-Q37::Suppose you need to define an interface for creating instances of several related abstract classes without specifying their concrete subclasses. Which of the following patterns would you most likely use? |Abstract Factory

::DP-Q38::Suppose you need to define an abstract interface for creating a complex object from its component parts, but allow different subclasses to create different representations of the parts? Which of the following patterns would you most likely use? |Builder

# Which of the following is a typical design domain for the MVC architecture?| Web server site application

# PAC agents are loosely couple.| True

# Which of the following is NOT an architecture style in hierarchical architecture? | C. Client-Server architecture

# Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture

# Sequential flow control can be predetermined in batch sequential. | True (correct)

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True

# Sequential flow control can be predetermined in pipe and filter. |True

# Polymorphism implies the following: | All of the others

# A component architecture can be derived from use case analysis and business concept diagrams|True

# Modifiability and expandability are essentially the same quality attribute. |False

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True.

# Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False.

# The master-slave architecture is a specialized form of main-subroutine architecture. | True.

# Software architecture design involves many software design methodologies and architecture styles. | True

# Pipe-and-filter is one of the architecture styles. | True

# Which of the following is NOT an architecture sytle in hierarchical architecture? | Client-Server architecture

# The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

#Which of the following is true about buffered message system All of others

#The below image is a snapshot of which architecture styles following Responitory architecture

#When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development PAC Architecture

#Which of the following architecture is suitable for the embedded system software design Process-control Architechture

#Which of the following is an Open-Close principle's implication Separate interface and implementation

#Which of following is one limitation of ClientServer architecture Server availability and reliability

#Which of the following is the limitation of Repository Architecture Style Data store reliability and availability is a very important issue

#Based on connector's information carrier, the connectors in software architecture might be classification into\_\_\_\_ Variable, Environment resource, Method, Message

#Which is the following diagram called Sequence diagram

#Polymorphism principles means that\_\_\_ An object can have different appearancebehaviors under different circumstances

#Which of the followings is NOT the benefit of distributed architecture Testability

#Which of the following is a limitation of Non-buffered Event-based architecture Reliability and overhead of indirect invocations

#Which of the following are considered as Business attributes Time to market, Performance, Security

#When will you apply the Process-Control architecture Developing a system which needs to maintain an output data at a stable level

#The constituent parts of the architecture of a system are which of the following Its components, connectors, and the rules governing their interactions

#The Architectural Decision Procedure includes following steps(1)Quantify the quality attributes(2)Determine the required quality attributes in requirement analysis(3)Compute the weighted sum Which is the correct order of these steps 2=1=3

#Which of the following is a limitation of Layered architecture Lower runtime performance

#Which of the following is a limitation of component architecture Adaption of components

#Which of the following is the limitation of message-driven architecture Capacity limit of message queue

#Which of the following is NOT an architecture style in hierarchical architecture Client-Server architecture

#Which of the following statement is TRUE The usability of a user interface is enhanced by consistency and integration

#ATAM is which of the following methods Architecture Trade-off Analysis Method

#Which of the followings is one of distributed architecture Service Oriented architecture

#User Interface Evaluation does NOT focus on which of following features Only the tailor-able of the user interface

#Which of the following is a PAC architecture benefit All of the others

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#Sequence diagrams are used to support\_\_\_ The logical view

#Which of the followings is a typical style of Hierarchical architecture Hierarchical structure, Layered, Master-Slave, Virtual Machine

#Which of the following is TRUE Hardware independence does not imply software independence

#Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice (1) Event; (2) Event Listener

#Repository architecture and Blackboard architecture is categorized into which of following architecture style Data-Centered architecture style

#The following diagram is a description of which architecture style Master-Slave architecture

#Which of the following is NOT a buffer-based software architecture Peer-to-Peer Connection

#(1) is better because of which following Easy expansion

#Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following Allows stateful service

#in UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline Sequence Diagram

#In Non-buffered Event-based architecture, how many partitions a system could be broken into 2 partitions

#Which of the following is the advantage of broker architecture Changeability and extensibility

#Portability refers to\_\_\_ The level of independence of the system on software and hardware platforms.

#The acronym SAPCO is used for which of following purpose Describing the Satisfactory principles of user interfaces

#Which is the benefit of MVC Multiple views synchronized with same data model

#Which of the following statement is TRUE One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

#Which diagram is equivalent to a sequence diagram Collaboration

#Which of the following is one of advantages of Component-based architecture Productivity for the software development and future software development

#With a good software design, Which is the benefit we will get It helps to coordinate development teams to work together orderly

#Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system The same logic can be accessed by different kinds of user interfaces

#The outcome of Object Oriented Analysis stage are Requirement Specification, Initial logic structure of the system

#The following image is an example of Pipe-and-Fiiter architecture

#Which of the following is one of the benefits of asynchronous architecture Loose coupling of modules

#Which of the followings is not typical design domain of the asynchronous architecture Hierarchical structure

#The testing of synchronous architecture is more straightforward than asynchronous architecture TRUE

#4.Implicit notification is often used in MVC architecture tRue

#13. Message-based architecture is appropriate for a compiler in an IDE design False

#1. Which of the following is not a benefit of the MVC architecturea.Supports multiple independent agents

#2.Which of the following is a typical design domain for the MVC architecture Web server site application

#1.Which of the following is not one of the benefits of distributed architecture c. Supports multiple views

#Which of the following is not a typical style of distributed architecture b. Hierarchical structure

#Client-server architecture in general is more scalable than the multi-tier False

#which of the following is not a benefit of component architecture a. Concurrency

#Which of the following is not a benefit of component architecture Performance

#Each component must have its provided ports and required ports FALSE

#Which of the following is used to evaluate architecture designs ALL

#Which of the following is true about heterogeneous architecture If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

#Modifiability and expandability are essentially the same quality attribute FALSE

#SAAM relies on use cases to test an architecture design FALSE

#There is always an architecture design that can meet all requirements FALSE

#Batch sequential architecture is generally more time efficient than pipe and false

#A user interface is mainly for accepting inputs, conducting computations, and displaying outputs False

#Chapter 3 of this book, on �models for software architecture�, has nothing to do with user interfaces described in this chapter False

#Which of the following is true for implementing the separation of the user interface from the logic of the software system All

#The look and feel of a user interface can be defined by using engineering rules False

#customizable user interface is not a good style since it will confuse users False

#The acronym SAPCO describes The satisfactory principles of user interfaces

#The constituent parts of the architecture of a system are� Its components, connectors, and the rules governing their interactions

#Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain False

#Product line processes are a way to institutionalize systematic reuseFalse FALSE

#Design-for-commonality anticipates variation without compromising commonality False

# software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system fALSE

#reusable assets are limited to code components False

#11. Software components do not need adaptation false

#Which of the following is true about buffered message system Buffered message system is easy to debug

#The below image is a snapshot of which architecture styles following Repository architecture

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#Which of the following architecture is suitable for the embedded system software design Process-Control Architecture

#Which of the following is an Open-Close principle�s implication Separate interface and implementation

#Design produces architecture that specify products and components in the form of Which of the following A detail-level design solution

#Which of following is one limitation of ClientServer architecture Server availability and reliability

#Which of the following is the limitation of Repository Architecture Style Data store reliability and availability is a very important issue.

#Based on connector�s information carrier, the connectors in software architecture might be classification into Variable, Environment resource, Method, Message

#Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

#Which of the following diagram called Sequence diagram

#Polymorphism principles means that An object can have different appearancebehaviors under different circumstances

#Which of the following is NOT the benefit of distributed architecture Testability

#Which of the following is a limitation of Non-Buffered Event-based architecture Reliability and overhead � indirect invocations

#Which of the following are considered as Business attributes . Time to market, Lifetime, Cost

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#With a good software design. Which is the benefit we will get . It helps to coordinate development teams to work together orderly.

# The outcome of Object Oriented Analysis are Requirement Specification, Initial logic structure of the system

#In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style b. Client-side proxy

#Which of the following are considered as implementation attributes Interoperability, maintainability, prortability, fexibility

#28. SAPCO stands for which It refers to five major principles interface design considersSimple, Aesthetic, Productive, Customizable, Other

#29. In user interface design step. User-centered factor consideration means what Designers must take into account the needs, experiences, and capabilities of the system users.

#Choose the correct statement Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world

#Which of the following are considered as Business attributes Time to market, Lifetime, Cost

#Portability belongs to which of the following quality attributes group Implementation attributes

#Architecture Styles contribute to which of the following Software Quality Attributes

#Usability belongs to which of the following quality attributes group Runtime attributes

#Usability refers to \_\_\_\_ The level of satisfaction from a human perspective in using the system

#In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ A software element

#In Software Dynamic structure, Connectors exhibit which of following attributes ( Choose the best one ) Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

#According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be Variable

#Based on connector's synchronization mode, the connectors could be classified into which categories below Blocking connector and non-blocking connector.

#At software development time, the software element are \_\_\_\_ Source code modules or files which have been assigned functional and non-functional attributes

#Which is the best answer for the meaning of the description of the class diagram below when you read it A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor

#Which is the following diagram called Sequence diagram or Timiming diagram

#Which of the following notations is used to support the physical view None of the others

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#Which of the following is NOT an Open-Close principle's implication Feel free to change software code

#The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ Requirement Specification, Initial logic structure of the system

#Which of the following is an Open-Close principle's implication Keep attributes private

#Choose the correct statement Object oriented analysis establishes an object-oriented abstract model of the system to be built

#In UML 2.0, Which of the following is TRUE Sequence Diagram describes time sequence of messages passed between objects in timeline

#When will you apply the Batch Sequence architecture Developing a system where each sub-system reads related input files and writes output files

#Which of the following is the INCORRECT statement about active filter It lets connected pipes to push data in and pull data out.

#Which of the following statement is TRUE One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

#Which of the following is the INCORRECT statement about passive filter It works with a passive pipe which provides readwrite mechanisms for pulling and pushing.

#Which of the following is a CORRECT statement Filters can run in separate threads of the same process.

#The following image is an example of which architecture style Repository architecture style and () is a Data Repository

#In the Repository architecture, Said that the client control the logic flow means what The software component agents control the computation, request and update data on repository actively.

#\_\_\_ are installed in the Blackboard component of the blackboard Facts

#Data store reliability and availability are limitations of which architecture style below Repository architecture

#Which of the following is the benefit of Blackboard Architecture Concurrency

#In DFD, the follow image is a representation of which flow Transaction flow

#Which of the following is NOT the limitation of layered architecture Incremental software development based on increasing levels of abstraction

#With an application that has clean divisions between core services, critical services, user interface services�. Which architecture style will you apply Layered architecture

#A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank A virtual abstraction

#Which of the following is the limitation of virtual machine architecture Overhead due to the new layer

#The limitation of message-driven architecture over event-driven architecture is which of the following Capacity of message queue

#Which architecture style supports scalability and reliability better Buffered message-based architecture (2)

#When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend. Among the styles below, which is the architecture style you will choose to apply into your system architecture Buffered Message-based Architecture style

#Which of the following is the limitation of message-driven architecture Capacity limit of message queue

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice 3 major partitions - Data module, Control module, Presentation Module

#When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose PAC architecture

#What of the following characteristic do MVC and PAC both have Support for developing interactive application

#Which of the followings is a typical design domain of the MVC architecture Web server site application

#Which of the following are PAC architecture's benefits All of the others

#In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers Broker

#Which of the followings is a style of distributed architecture Service Oriented architecture

#Which of the following is the most important quality attribute of Broker architecture style Better decoupling between clients and servers

#Which of the followings is NOT the benefit of distributed architecture Testability

#The image below describes a distributed architecture style. Choose which the suitable style is SOA

#Which is the reason of the increase of overall system reliability when you apply component-based architecture The reliability of each individual component enhances the reliability of the whole system via reuse.

#Which of the following description is TRUE A component is stored in a binary format, executable and deployable.

#Which of the following is a benefit of component-based architecture Independency and flexible connectivity of components

#Which of the following attribute relates to time and space Efficiency

#SAAM is which of the following methods Software Architecture Analysis Method

#Which of the following attribute relates to user interfaces' learning ability Usability

#In User Interface design step, Separation factor consideration means what Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations

#In User Interface design step, Intuitive factor consideration means what The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

#Design produces architectures that specify products and components in the form of which of the following An abstract-level design solution

# Which of the following is NOT the benefit of multi-tier architecture styleLoad balancing (correct)

# Event-based architecture is difficult to test and debugTrue (correct)

# Main- subroutine architecture can also be applied in any object-oriented software designFalse

# Component deployment is a good practice in a layered architecture.True

# In Client-Server architecture style, there are follow typesThin-client, Fat-client

# Client-server architecture is general is better availability than the multi-tier modelFalse

# The following image is an example of one of architecture style below. Which is the best choiceMulti-tierMulti-tier Architecture Style

# Sequential flow control can be predetermined in batch sequentialTrue

# Facts are installed in the Blackboard component of the Blackboard architectureTrue

# RPG is widely used to implement batch sequentialTrue

# Event-based architecture style is a buffered architectureFalse

# Only directly adjacent layers can invoke each other�s methods in a layered architecture.False

# Java can be used to implement a pipe and filter design systemTrue

# The control flow in batch sequential is implicit.True

# The following image is an example of one of architecture style below. Which is the best choiceBProcess-Control architecture

# In Thin-client type, the server includes which of the following processingData storage processing, Business Logic Processing

# Implicit notification is often used in blackboard architectureTrue

# The control flow in pipe and filter is explicitTrue

# FPT�s University CMS is an example of repository designTrue

# The master-slave architecture is a specialized form of main-subroutine architectureTrue

# In Fat-client type, the client includes which of the following processingPresentation processing, Business Logic Processing

# Repository architecture design could NOT be object-oriented designTrue

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store.True

# which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systemsBlackboard architecture

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.True

# The testing of synchronous architecture is more straightforward than asynchronous architecture.True

# Two modules in a data flow system can change their order without any constrains.False

# Multiple event targets can register with same event sourceTrue

# Sequential flow control can be predetermined in pipe and filter.True

# Which of the following is not an open-close principles�s implicationFeel free to change software code.

# Architecture design is about choosing the right single architecture style for a projectFalse

# Software quality attributes must satisfy functional requirementsFalse

# UML diagrams are used for system analysis and designTrue

# The CRC card method in used to identify the responsibilities of each classTrue

# Which of the following notations is used to support the physical viewNon of the others(Sequence,State,Colla)

# Which of the following are considered as implementation attributesInteroperability, maintainability, portability, flexibility

# Which of the following notations is used to support the logical viewAll of the others(Sequence,State,Colla)

# Pipe-and-Filter is one of the architecture stylesTrue

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �JohnDoctor�. Which of the following is correct expressionAn object named �John� whose class is �Doctor�

# In UML 2.0 Which of the following is trueSequence diagram both concurrencies and loops can be specified

# Which of the following diagram is NOT an structural diagramSequence diagram

# The purpose of the software design phase is to product a software requirement specificationTrue

# What is a class involved in accomplishing the responsibility of a class called in CRC modelingCollaboration

# Which of the following is open-close principleOpen to extension, close to modification

# Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.True

# Software architecture design is based on the software requirement specificationTrue

# Which are the categories of operations that a class can provideConstructor, Destructor, Accessor, Mutator

# Which of the following are considered as Runtime attributesAvailability, Security, Performance, Usabilty

# Object-oriented design is a design methodologyTrue

# Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.Logical view

# Which of the following is a feature of object oriented methodologyInheritance

# Which is NOT a structure which can be described in a software architectureOperation structure

# Architecture styles contribute to software quality attributesTrue

# Which of the following structures describe the dynamic properties of software architectureSoftware runtime structure

# Abstraction via inheritance is one effective way to achieve the open-close principleTrue

# Polymorphism implies the followingAll of the others

# Which of the following are benefits of object oriented designAll of the others

# Which of the following is an architecture design evaluation methodologySAAM

# SAAM relies on scenarios to test an architecture designTrue

# Which of the following is NOT a benefit of Component architecturePerformance

# RMI is an example of the broker architectureTrue

# Which of the following is NOT a typical style of distributed architectureMVC

# In SOA architecture, Interperability means whatTechnically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

# Event-based architecture is appropriate for a compiler in an IDE designFalse

# The image below is an example of static style of user interce�slaout Which which is the correct answerIt�s 1D layout

# The abstraction and presentation components in a PAC agent do not talk to each other directlyTrue

# The PAC architecture is a hierarchically structured software architectureTrue

# There is always only one architecture design that can meet all requirementsTrue

# Which of the following statements is TRUEa. The usability of a user interfaceThe usability of a user interface is enhanced by consistency and integration.

# A component architecture can be derived from use case analysis and business concept diagramTrue

# Which of the following is NOT the benefit of Broker architecture styleEasy in testing

# Blackboard architecture is difficult to debug and test.True

# Modifiability and expandability are essentially the same quality attribute.False

# Client-server architecture in general is more scalable than the multi-tier modelFalse

# Implicit notication is often used in the MVC architecture.True

# Google Map is an example of services in SOA architectureTrue

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components.True

# Many MVC vender framework toolkits are available is one of the benefits of MVC architecture styleTrue

# Which of the following is TRUE about heterogeneous architectureIf the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

# Coupling in message-driven architecture is even looser than in event-driven architectureTrue

# Batch sequential architecture is general more time efficient then pipe and filterFalse

# In user interface design step.User-centered factor consideration means whatDesigners must take into account the needs, experiences, and capabilities of the system users.

# Core type classes can be recognized as a new componentTrue

# SAPCO stands for whichIt refers to five major principles interface design considersSimple, Aesthetic, Productive, Customizable, Other

# Which is the most appropriate architecture style to develop a radar system like belowPAC

# In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture StyleClient-side proxy

# In user interface evaluation step, we should focus on whatThe usability of the interface

# The constituent elements of software architecture are software elements and their connections.False

# Software architecture design involves many software design methodologies and architecture styles.True

# Software architecture = software architecture stylesFalse

# Which of the following structures describe the static properties of software architectureSoftware code structure

# Different architecture structures have different element and connector typesTrue

# Element and connector attributes are derived from the project requirements.True

# Divide-and-conquer is not a suitable methodology for architecture designFalse

# Deployment decisions should be reflected in early architecture designs.False

# Activity diagrams are used to support the process view.True

# Deployment diagrams are used to support the physical view.True

# Component diagrams are used to support the development view.True

# The software sub modules and their interfaces are described in the logical view.True

# System and network configuration decisions are part of the physical view.True

# Software architecture is concerned only with functional requirements.False

# Prototyping can be used to support UI design.True

# ADL is a programming languageFalse

# ADL can produce target code.True

# ADL is used only for software architecture specification.False

# Composite structure diagrams are based on object diagrams.True

# Component diagrams are based on object diagrams.True

# A UML diagram must provide a complete view of the entire software system.True

# A component is a class or an object.False

# Asynchronous message invocation can be expressed in sequence diagrams.True

# Conditional branching can be represented in sequence diagrams.True

# An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.True

# An interaction overview diagram is based on all low-level interaction diagrams.True

# Which of the following are not benefits of pipe and filter Interactive.

# Which of the followings are not benefits of batch sequentialInteractive.

# COBOL is widely used to implement batch sequential.True

# Two modules in a data flow system can change their order without any constraints.False

# Java can be used to implement a pipe and filter design system.True

# The control flow in pipe and filter is explicit.True

# There are data sharing (shared data) among all subsystems in a data flow system.False

# Sequential flow control can be predetermined in pipe and filterTrue

# Which of the following is not a benefit of repository architectureConcurrency.

# Which of the following is a typical design domain of blackboard architectureAI system

# The Yellow Page of web service is an example of repository designTrue

# Implicit notification is often used in blackboard architecture.True

# Repository architecture design must also be object-oriented design.True

# Loose coupling is used between repository agents.True

# There is tight dependency of agents on the data store in the repository architecture.TRue

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.False

# The facts or hypotheses are stored in the knowledge source component of a blackboard system.False

# Which of the following is not a benefit of hierarchical architectureConcurrency

# Which of the following is a disadvantage of hierarchical architectureOverhead

# Web service is an example of hierarchy architecture design.True

# Hierarchical architecture is a procedure-oriented design paradigm only.False

# Hierarchical architecture can also be applied in any object-oriented software design.True

# There is data sharing between all layers in a layered architecture.False

# The callback method is typically used in a main-subroutine architecture.False

# The master-slave architecture is a specialized form of main-subroutine architecture.True

# Which of the following is not one of the benefits of distributed architectureSupports multiple views

# Which of the following is not a typical style of distributed architectureHierarchical architecture.

# Client-server architecture in general is more scalable than the multi-tier model.False

# CORBA is an example of the broker architecture.True

# Web service is an example of SOA architecture.True

# CCM is a target technology for component technology.True

# Each component may have its provided ports and required ports from other components.True

# Each component must have its provided ports and required ports.False

# The provided interface ports may be in synchronous or asynchronous modes.True

# A component architecture can be derived from use case analysis and business concept diagram.True

# Core type classes can be recognized as a new component.True

# A core type component does not depend on any other classes.True

# Which of the following is used to evaluate architecture designsALL

# SAAM relies on use cases to test an architecture design.False

# There is always an architecture design that can meet all requirements.False

# Service-oriented architecture is stateless, while component-based architecture is not.True

# Batch sequential architecture is generally more time efficient than pipe and filter.False

# It is beneficial to integrate architecture design with the process of requirements analysis.True

# Event-based architecture is a good candidate for interactive systems with graphic user interface.True

# Blackboard architecture is difficult to debug.True

# A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.False

# Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter.False

# User interface refers to static components and their layout, not dynamically displayed information.False

# The MVC models suggest the separation of the user interface from the logic of the software systemTrue

# The look and feel of a user interface can be defined by using engineering rules.False

# A customizable user interface is not a good style since it will confuse users.False

# The usability of a user interface is enhanced by consistency and integration.True

# The acronym SAPCO describes The satisfactory principles of user interfaces

# The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.True

# The constituent parts the architecture of a system areIts components, connectors, and the rules governing their interactions.

# Domain analysis identifies the various common features in a domain and their differences.True

# Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.False

# Product line processes are a way to institutionalize systematic reuse.False

# Design-for-commonality anticipates variation without compromising commonality.False

# A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.True

# A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.False

# Reuse is not an end in itself but a means to an end.True

# Reusable assets are limited to code components.False

# Software components do not need adaption.False

# Horizontal reuse refers to the use of an asset across several distinct domains or different product line.True

# Which of the following is not a benefit of the MVC architectureSupport multiple independent agents

# Which of the following is a typical design domain for the MVC architectureWeb server site application

# Traffic control agents in a city traffic management system may be designed using PAC.True

# Implicit notification is often used in the MVC architecture.True

# The data in the Model component of the MVC architecture is activeTrue

# The data in the Abstraction component of a PAC agent is passive.True

# PAC agents are loosely couple.True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.True

# The Look and Feel feature is well supported in the MVC architectureTrue

# The PAC architecture is a hierarchically structured software architecture.True

#\_\_\_are installed in the Blackboard component of the blackboard architecture Rules and Facts

#'A' character in SAPCO is which of the following Aesthetic

#Choose the correct Software Architecture Design guideline. Think of what to do before thinking of howto do it

#Choose the correct statement. Runtime connectors in software runtime structure inherit attributes from source code structure without any extension

#Choose the correct statement Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

#Choose the incorrect statement UML diagram could be group into 3 major categories Structural, Behavioral and Deploymen

#Class diagram is grouped in which of following UML diagrams category Structural Diagrams

#CORBA is a good implementation example of\_\_\_\_ Broker Architecture

#In an architecture styles, which of the following is the components that perform functions required by a system Elements

#In Client-Server architecture style, there are follow types Thin-Client Fat-Client

#In SOA architecture. Interoperability means what Technically any client or any service can access other services regardless of thier Plarform, Technology, vendors, Language implementation

#In Software Dynamic structure. Connectors exhibit which of following attributes ( Choose the best one ) Direction. Synchronization. Sequence. Multiplicity. Self-descriptive

#In Thin-Client type, the server includes which of the following processing Data Storage Processing. Business Logic Processing

#In UML, a composition relationship is represented\_\_\_\_ Using a solid diamond arrowhead.

#In User Interface evaluation step, we should focus on what of the following The usability of the interface

#Interoperability refers to\_\_\_ The universal accessibility and the ability to exchange data with internal components and the outside world.

#Repository architecture and Blackboard architecture is categorized into which of following architecture style Data-Centered architecture style

#Sequence diagrams are used to support\_\_\_ The logical view

#Software Design Description includes\_\_\_ The software architecture and the detailed design of the system.

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#The Architectural Decision Procedure includes following steps Determine-Quantify-Compute

#The constituent parts of the architecture of a system are which of the following Its components, connectors, and the rules governing their interactions

#The following image is an example of Repository architecture

#The key point of the interaction oriented software architectures is \_ Which is the best answer In the separation of user interactions from data abstraction and business data processing

#The purpose of the software analysis phase is to produce a software requirement specification True

#The software quality attributes are the software non-functional requirements such as Performance. Usability. Security. Portability

#Usability belongs to which ofthe following quality attributes group Runtime attributes

#What is called in CRC modeling a class that is involved in accomplishing the responsibility of a class Co aborator

#Which are the categories of operations that a class can provide Constructor. Destructor. Accessor. Mutator

#Which is the benefit of MVC Multiple views synchronized with same data model.

#Which is the following diagram called Package diagram

#Which is the following diagram called State machine diagram

#Which of following is one of the limitations of Client - Server architecture Server availability and reliability

#Which of the design below is better (1)

#Which of the design below is better (b)

#Which of the following are benefits of Object Oriented design All of the others

#Which of the following are considered as Runtime attributes Availability. Security. Performance. Usability

#Which of the following attributes which could be observable at runtime vailability. Security. Performance

#Which of the following is a benefit of asynchronous architecture Loose coupling of modules

#Which of the following is an Open-Close principle's implication Separate interface and implementation

#Which of the following is buffer-based software architecture Publish-Subscribe Messaging (P&S)

#Which of the following is NOT a benefit of Component architecture Performance

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#Which of the following is NOT a step in Object oriented design process Design of a UML Use-case diagram

#Which of the following is NOT an architecture style in hierarchical architecture Client-Server architecture

#Which of the following is NOT the benefit of Multi-tier architecture style Load balancing

#Which of the following is Open-Close principle in Object-Oriented Paradigm Open to extension. Close to modification

#Which of the following is the limitation of virtual machine architecture Overhead due to the new layer

#Which of the following is TRUE about heterogeneous architecture It the genenral structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

#Which of the following notations is used to support the logical view All of the others

#Which of the following notations is used to support the physical view None of the others

#Which of the followings is a style of distributed architecture Multi-tier architecture

#Which of the followings is a style of distributed architecture Service Oriented architecture

#Which of the followings is NOT the benefit of distributed architecture Testability

#Which ofthe following are considered as Business attributes Time to market. Lifetime, Cost

#You will apply the batch sequential architecture when Developing a system where intermediate file is a sequential access file

#(1) is better because ofwhich following Easy expansion

#A component is NOT \_. Which is the best choice A whole system which could be executed independent

#Choose the correct statement Time to market attribute refers to the time it takes from requirement analysis to the date product is released.

#Choose the correct statement. Class diagram shows how classes are statically related, but not how classes dynamically interact with each other.

#Choose the incorrect statement Inheritance relation is another name of composition relation

#Choose the incorrect statement Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

#In an architecture styles, which of the following is the components defining how elements can be integrated to form the system Constraints

#In Client-Server architecture style, there are follow types Thin-Client Fat-Server

#In interaction oriented software architecture. \_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice The view presentation module

#In Thin-Client type, the server includes which of the following processing. Data Storage Processing. Business Logic Processing

#in UML 2.0. Which diagram describes time sequence of messages passed between objects in timeline Time Sequence Diagram

#In UML 2.0. Which of the following is TRUE Sequence Diagram both concurrencies and loops can be specified

#In UML. a composition relationship is represented\_\_\_ Using a solid diamond arrowhead.

#In User Interface design step. User-centered factor consideration means what Designers must take into account the needs, experiences, and capabilities of the system users.

#Interoperability refers to\_\_\_\_ The universal accessibility and the ability to exchange data with internal components and the outside world.

#Object-Oriented principles includes\_\_\_\_\_ Inheritance. Encapsulation. Polymorphism

#Package diagram is grouped in which of following UML diagrams category Structural Diagrams

#Rule-based knowledge is installed in the\_\_\_\_component of the blackboard architecture Control

#SAAM is which of the following methods Software Architecture Analysis Method

#Software Design Description includes The software architecture and the detailed design of the system.

#The below image is a snapshot of which architecture styles following MVC architecture

#The below image is a snapshot of which architecture styles following PAC architecture

#The diagram given below is the class diagram of the Event-based architecture style. (1) Event Source; (2) Event Listener

#The following diagram is a description of which architecture style MVC Architecture

#The limitation of message-driven architecture over event-driven architecture is which of the following Capacity of message queue.

#Usability refers to\_\_\_\_ The level of satisfaction from a human perspective in using the system.

#Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle True

#Which is NOT a software structure that a software architecture can be described with State structure

#Which is NOT the way to make the data flow in Pipe and Filter architecture Leave data in a center repository

#Which is the INCORRECT guide for mapping run time elements If an element is re-entrant it can not be implemented by a thread or a process.

#Which of the below description is a limitation of MVC architecture style Does not fit well agent-oriented applications such as interactive mobile and robotics applications

#Which of the following attributes which could be observable at runtime Availability. Security. Performance

#Which of the following guides is NOT the guideline for mapping run time elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

#Which of the following is a limitation of Layered architecture Lower runtime performance

#Which of the followings is a typical design domain of the MVC architecture Web server site application

#Which of the following is a limitation of Non-buffered Event-based architecture Reliability and overhead of indirect invocations

#Which of the following is NOT a typical style of distributed architecture Client-Server architecture

#Which of the following is NOT an architecture style in hierarchical architecture Message-based Architecture

#Which of the following is NOT an Open-Close principle's implication Feel free to change software code.

#Which of the following is the benefit of Blackboard Architecture Concurrency

#Which of the following is the benefit of layered architecture Incremental software development based on increasing levels of abstraction

#Which of the following is the design style could be applicable in Weather broadcast Pattern recognition and authentication in information security systems (Choose the best one) Blackboard Architecture

#Which of the following is the limitation of Repository architecture Data store availability

#Which of the following statement is TRUE Deployment diagrams are used to support the physical view

#Which of the following statement is TRUE One of benefits of Pipe and Filter architecture is Concurrency.

#Which of the following statement is TRUE Three-tier is a variant of Client-Server architecture.

#Which of the followings are categorized into Hierarchical architecture styles Hierarchical structure. Layered. Master-Slave. Virtual Machine

#Which of the followings is a style of distributed architecture Master - Slave architecture

#Which ofthe following is an architecture design evaluation methodology SAAM

#You will apply the batch sequential architecture when Developing a system where intermediate file is a sequential access file.

#A\_\_\_\_\_\_\_\_\_\_\_is a collection of computational and storage devices connected through a communications network Distributed system

#Which kind of class is not used in ananalysis class diagram Concrete class

#Which of the following is NOT buffer-based Callback

#When do we use pipe& filter architecture All of the others

#Which is a deployable software package that can provide services to its clients Component

#For a large-scale software project, \_\_\_\_\_\_\_\_\_\_\_\_\_\_styles are used to combine benefits of multiple styles and to ensure quality and appropriateness. heterogeneous architecture

#The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions\_\_\_\_\_\_\_and event sourcesevent listeners

#The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ composite diagram

#The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. passiveactive

#\_\_\_\_\_\_\_\_\_refers to the universal accessibility and the ability to exchange data with internal components and the out side world. Interoperability

#The\_\_\_\_\_\_\_\_\_\_\_\_software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other. data flow

#Which of the following is false for implementing the separation of the user interface from the logic of the software system None of the others

#Which style of hierarchical architecture are often applied in traditional programming Main-subroutine

#Which kind of UML diagram can be expressed asynchronous message invocation Sequence diagram

#Select correct statement(s)Statement1Good software architectural designs are based on the recursive

#A\_\_\_\_\_\_\_\_\_is a modular (cohesive), deployable (portable), replaceable (plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. component

#Select the disadvantages of direct manipulation None of the others

#Select incorrect statement Agents in the repository architecture normally Agents in the repository architecture normally do not talk with each other directly, except though data store.

#Which of following software system cannot bedesigned using PAC Compiler

#Select incorrect statement about module ininteraction-oriented software architecture The data repository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data initialization and system configuration actions

#How many different way are there to move data in PF 3

#Which is not correct way to use a component lookup in EJB

#Which is not component in interaction-oriented software architecture Data repository

#To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case Trade off between scalability and performance

#Which tool can be used to describe an architecture style 4+1 view model

#Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. Hierarchical

#Which task should not be the first activity of software architects when the software project start Collecting project requirements

#Select the partition of nonbuffered event-based implicit invocation architecture 1.Event listeners 2.Event sources

#Which are the different between component-oriented design and object-oriented design All of the others

#Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability Master-slave

#There are two categories of data-centered architecture\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 1.blackboard 2.repository

#The benefit of the broker architecture All of the others

#Which of the following is NOT the benefit of the MVC architecture Supports multiple independent agents

#Which of the followings is NOT the benefit of hierarchical architecture concurrency

#Which of the followings is NOT the benefit of repository architecture Loose coupling

#Which of the following is true All of the others

#Which is dynamic diagram Use-case diagram

#The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. Master-slave architecture

#Typical OO languages include the following All of the others

#Select the benefits of nonbuffered event-based implicit invocation architecture All of the others

#Which is the most suitable diagram to describe the lifecycle of objects Object diagram

#The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_component of a blackboard system. Blackboard

#Which of the following notations is not used to support the logical view Deployment diagram

#Which of the following is not considered as event-driven Callback

#Polymorphism implies the following the same operation might behave differently at runtime

#\_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures Client-servermodel

#In ClientServer architecture All of the others

#Select correct statement about inheritance Class can inheritances more than one interface

#Select correct statement None of the others

#Select incorrect statement JDBC is XML based

#Select incorrect statement Data repository architecture issuitable for artificial intelligent systems and expert systems

#Select correct statement Pipe and filter is generally more time efficient than batch sequential.

#Select correct statement A user interface is mainly for accepting inputs and displaying outputs

#Select correct statement Aprotocol-based connector can better support interactions between heterogeneou selements

#Select incorrect statement Design user interfaces are the task of the software designers and developers have nothing with the software users

#Select correct statement Concurrency is not supported in batch-sequential architecture

#Which of the following is the benefit of Blackboard Architecture StyleReusability of knowledge source agents

#In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the followingThe new sub-system is compatible with the corresponding input and output data format.

#Which is the reason why software reuse is criticalAll of the others

#In Non-buffered Event-based architecture, how many partitions a system could be separated into2 partitions

#Which is NOT a software structure that software architecture can be described withState structure

#Choose the incorrect statement.UML diagram could beUML diagram could be group into 3 major categories Structural, Behavioral and Deployment.

#The Architectural Decision Procedure includes following stepsDetermine the,Compute the weighted ,Quantify the1 = 3 = 2

#According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should beMethod

#Availability refers to \_\_\_\_The ability of a system to be available 24x7

#Portability refers to \_\_\_\_The ability to modify the system and extend it conveniently.

#In User Interface design step, Information representation factor consideration means whatDesigners must take into account the needs, experiences, and capabilities of the system users.

#Evaluating the abstraction of software development methodology, Which is the right order ( is higher )Component-based Object-oriented Functional-oriented Service-based

#Quality attributes could be categorized into 3 groups which areImplementation attributes, Runtime attributes, Business attributes

#In Layered architecture, the interface of each layer encapsulates \_\_.All detailed service implementations in the current layer and the interfaces of the layers below.

#You will apply the batch sequential architecture whenDeveloping a system where intermediate file is a sequential access file.

#Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate responseBuffered message-based architecture

#Which is the correct order in Object oriented design process(Identify,Class,Construct,Build,Class)1, 4, 3, 2, 5

#In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output dataBatch sequential architecture

#Which of the following is a INCORRECT description about component in Component-based architectureA Component is NOT a modular.

#Which is the CORRECT statement about a pipeA Pipe moves a data stream from one filter to another.

#In UML 2.0, Which of the following is TRUESequence Diagram describes time sequence of messages passed between objects in timeline.

#Which of the following is TRUE about buffered message systemAll of the others

#Which of the following is NOT the benefit of Broker architecture styleEasy in testing

#Which of the following is a limitation of Layered architectureLower runtime performance

#Repository architecture and Blackboard architecture is categorized into which of following architecture styleData-Centered architecture style

#According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it can continue its execution without waiting for a response. Which of the following is CORRECT category the connector should beNon-blocking

#Three Object Oriented Principles are which of followingEncapsulation, Inheritance, Polymorphism

#Which of the following are PAC architecture's benefitsAll of the others

#In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choiceThe view presentation module

#In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choiceThe data module

#In Blackboard architecture, a controller takes which roleIt takes a bootstrap role and overall supervision control.

#Which of the following is the INCORRECT statement about passive filterIt lets connected pipes to push data in and pull data out

#UML diagrams are \_\_\_\_ which are used for system analysis and designTools

#According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should beBlocking

#Which of the following is buffer-based software architecturePeer-to-Peer connection

#Security belongs to which of the following quality attributes groupRuntime attributes

#What is the CORRECT statement about virtual repository(physical)A virtual repository is built up on the top of multiple physical repository

#What is the INCORRECT statement about distributed repositoryAll data are centralized

#Which of the following is an Open-Close principle's implicationSeparate interface and implementation

#Which of the following is NOT an architecture style in hierarchical architectureClient-Server architecture

#For software project resource allocation, the software element are \_\_\_\_Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

#In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module belowController module

#Which of the following is used to evaluate architecture designAll of the others

#Activity diagrams are used to support \_\_\_\_The process view

#In User Interface design step, Friendliness factor consideration means whatThe behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

#Which of the following is a benefit of component-based architectureIndependency and flexible connectivity of components

#According to IEEE Standard 1471, The system architecture is \_\_\_\_A collection of components organized to accomplish a specific function or set of functions

#In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating serversSkeleton

#In Thin-Client type, the server includes which of the following processing.Data Storage Processing, Business Logic Processing

#Which of the following is NOT an architecture style in hierarchical architectureMessage-based Architecture

#Which of the following statement is TRUE(The usability of a user interface )The usability of a user interface is reduced by consistency and integration

#Which architecture style supports loose coupling between legacy systems and modern systems for integration developmentBuffered message-based architecture

#A class is said to be cohesive if it supports as many associated responsibilities as possible False

#A component is a class or an object False

#A part involved in an aggregation relationship should be born and terminate at the same moment as its owner False

#Activity diagrams are used to support the process view True

#ADL is a programming language False

#ADL is used only for software architecture specification False

#Architecture design is about choosing the right single architecture style for a project False

#Architecture styles contribute to software quality attributes True

#C is a popular OO programming language False

#C is popular OO programming language False

#Client-server architecture in general is more scalable than the multi-tier model False

#Component diagrams are used to support the development view True

#Deloyment decisions should be reflected in early architecture False

#Deployment decisions should be reflected in early architecture designs False

#Deployment diagrams are used to support the physical view True

#Different architectures structures have different element and connector types True

#Divide and conquer is not a suitable methodology for architecture designs False

#Divide-and-conquer is not a suitable methodology for architecture design False

#Element and connector attributes are derived from the project True

#Hierarchical architecture is a procedure-oriented design paradigm only False

#In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �JohnDoctor�. Which of the following is correct expression An object named �John� whose class is �Doctor�

#In UML 2.0 Which of the following is true Sequence Diagram both concurencies and loops can be specified

#Message-based architecture is appropriate for a compiler in an IDE design False

#Object-oriented design is a design methodology True

#Pipe and filter is one of the architecture styles True

#Polymorphism implies the following All of the others

#Repository architecture design must also be object-oriented design False

#Rule-based knowledge is installed in the blackboard component of the blackboard architecture False

#Sequence diagrams do not describe loops in a message exchange process False

#Sequence diagrams do not describe loops in a message exchange process. False

#Software architecture = software architecture styles False

#Software architecture design involves many software design methodologies and architecture styles True

#Software architecture design is based on the SRS True

#Software architecture is a static software structure description False

#Software architecture is concerned only with functional requirements False

#Software quality attributes must satify functional requirement False

#Software quality attributes must satisfy functional requirements False

#The callback method is typically used in a main-subroutine architecture False

#The constituent elements of software architecture are software elements and their connections False

#The constituent elements of software architecture are software elements and their connections. False

#The control flow in batch sequential is implicit true

#The control flow in pipe and filter is explicit False

#The facts or hypotheses are stored in the knowledge source component of a blackboard system False

#The purpose of software design phase is to produce a software requirement specification False

#The purpose of the software design phase is to produce a software requirement specification False

#The set of classes in a design is nailed down when the analysis class diagram is finished False

#The set of classes in a design is nailed down when the analysis class diagram is finished. False

#There are data sharing (shared data) among all subsystems in a data flow system False

#There are data sharing (shares data) among all subsystems in a data flow systems False

#There is data sharing between all layers in a layered architecture False

#Two modules in a data flow system can change their order without any constraints False

#What is a class involved in accomplishing the responsibility of a class called in CRC modeling Collaborator

#Which are the categories of operations that a class can provide Constructor, Destructor, Accessor, Mutator

#Which is not a structure which can be described in a software architecture Operation structure

#Which of following structures describe the dynamic properties of software architecture Software runtime structure

#Which of following structures describe the static properties of software architecture Software code structuredeploymentmanagement structure

#Which of the following are benefits of OO design All of the above

#Which of the following are benefits of OO design All

#Which of the following are considered as Runtime attribute Availability, Security, Perfomance, Usability

#Which of the following are features of object oriented methodology Inheritance

#Which of the following are features of OO methodology Inheritance

#Which of the following are not benefits of pipe and filter Interactive

#Which of the following diagram is NOT an structural diagram Sequence diagram

#Which of the following is a disadvantage of hierarchical architecture Overhead

#Which of the following is a typical design domain for the MVC architecture Web server site application

#Which of the following is a typical design domain of blackboard architecture Al system

#which of the following is not a benefit of component architecture Concurrency

#Which of the following is not a benefit of component architecture Performance

#Which of the following is not a benefit of hierarchical architecture Concurrency

#Which of the following is not a benefit of repository architecture Concurrency

#Which of the following is not a benefit of the MVC architecture Supports multiple independent agents

#Which of the following is not a typical style of distributed architecture Hierarchical architecture

#Which of the following is not a typical style of distributed architecture Hierarchical structure

#Which of the following is not an Open-Closed principle�s implication Feel free to change software code

#Which of the following is not one of the benefits of distributed architecture Supports multiple views

#Which of the following is one of the benefits of asynchronous architecture Loose coupling of modules

#Which of the following is Open-Closed principle Open to extension, Close to modification

#Which of the following notations is used to support the logical view All of the above

#Which of the following notations is used to support the logical view All

#Which of the following notations is used to support the physical view None of the above

#Which of the following notations is used to support the physical views None

#Which of the following structures describe the dynamic properties of software architecture Software runtime structure

#Which of the followings are not benefits of batch sequential Interactive

#Which of the followings is not typical design domain of the asynchronous architecture Hierarchical structure

#Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc Logicalview

#Activity diagrams are used to support�� The process view

#With a good software design, which is benefit we will get It leads the risk in software production more serious

#which of the following is advantage of broker architecture Changeability and extensibility

#The outcome of Object Oriented Analysis stage are� Requirement Specification, Initial logic structure of the system

#Which of the following if limitation of Non-buffered Event-Based architecture Reliability and overhead of indirect invocations

#Package diagram is grouped in which of following UML diagram category Structure diagram

#Design produces architectures that specify products and components in the form of which of the following A detail-level design solution

#Which of the following is TRUE for implementing the separation of the user interface from the logic of software system all

#The constituent parts of the architecture of a system are which of the following Its component, connectors, and the rules governing their interactions

#Which diagram equivalent to a sequence diagram Collaboration diagram

#Which of the following is NOT benefit of distributed architecture Supports multiple independent argents

#When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development PAC architecture

#Which of the perspective where the connectors in software architecture might be classification into 4 types Variable, environment resource, method, message Based on connector�s information carrier

#ATAM is which of the following methods Architecture Trace-off Analysis Method

#Repository architecture and Backboard architecture is categorized into which of the following architecture style Data-centered architecture style

#The below image is a snapshot of which architecture styles following MVC architecture

#Which of the following is TRUE Time efficiency is usually the most important quality attribute

#Which of the following is one limitation of ClientServer architecture Server availability and reliability

#Which of the following is one of distributed architecture Service-Oriented architecture

#Which of the following is limitation of message-driven architecture Capacity limit of message queue

#When will you apply the Batch Sequence architecture Developing a system where each sub-system reads related input files and writes output files

#Which of the following attributes which could be observable at runtime Availability, Security, Performance

#Which of the following is one of advantages of Component-Based architecture Productivity for the software development and future software development

#In user interface evaluation step, we should focus on what The usability of the interface

#Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute 1.Efficiency 2.Functionality 3.Productivity

#The acronym SAPCO is used for which of following purpose Describing the Easy to use attribute of user interfaces

#Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to local method invocation

#Polymorphism principles mean that�. An object can have different appearancebehaviors under difference circumstances

#Compared with SOA, the advantage of SBA is which of the following Allows stateful service

#Which of the following is NOT a buffer- based software architecture Peer-to-peer connection

#Which of the following is an Open-Close principle�s implication Keep attributes private

#Which of the following is NOT the benefit of multi-tier architecture style Load balancing

#Main- subroutine architecture can also be applied in any object-oriented software design False

#In Client-Server architecture style, there are follow types Thin-client, Fat-client

#Client-server architecture is general is better availability than the multi-tier model False

#The following image is an example of one of architecture style below. Which is the best choice Multi-tier Architecture Style

#Event-based architecture style is a buffered architecture False

#Only directly adjacent layers can invoke each other�s methods in a layered architecture False

#The following image is an example of one of architecture style below. Which is the best choice Process-Control architecture

#In Thin-client type, the server includes which of the following processing Data storage processing, Business Logic Processing

#In Fat-client type, the server includes which of the following processing Presentation processing, Business Logic Processing

#which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems Blackboard architecture

#Rule-based knowledge is installed in the blackboard component of the blackboard architecture False

#Two modules in a data flow system can change their order without any constrains False

#main sub-rountine False

#Event based buffer False

#two module False

#Software quality attributes must satify functional requirement FalsE

#Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecture styles ( is better ) Client-Server Broker Service-oriented

#What of the following statement about the characteristic in Service-oriented and Broker are CORRECT Both are hard to test and debug.

#Which of the below description is a benefit of PAC architecture style Complete separation of presentation and abstraction

#Which of the following statement is TRUE Three-tier is the same as MVC architecture

#Which of the following statement is TRUE about MVC-I The Controller-View module registers with the Model module

#Which of the following is NOT a typical style of distributed architecture Hierarchical structure architecture

#Which of the following is the correct statement about Component-based architecture It divides the problem into sub-problems each associated with component partitions

#Which is the statement you can describe about MVC architecture style MVC is now a very popular architecture style

#Which is the most appropriate architecture style to develop a radar system like below PAC

#The below image is a snapshot of which architecture styles following Event-based architecture

#Which of the following statement is a correct description about the job of an architecture designer Exhaust all possible solutions, pick up the best one.

#CORBA is a good implementation example of Broker Architecture

#Which of the following attribute related to time and space Efficiency

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#The Architectural Decision Procedure includes following steps1) Quantify the quality 2 = 1 = 3

#Which is the statement you can describe about PAC architecture style PAC's Agents are loose coupling and high independent

#Which of the following is the main motivation of Component-based architecture Component reusability

#The key point of the interaction oriented software architectures is \_ Which is the best answer In the separation of user interactions from data abstraction and business data processing

#Which of the following is NOT a benefit of Component architecture Performance

#Which is an advantage of Client-Server Architecture Reusability of server components

#Which of the following is the advantage of Broker architecture Changeability and extensibility

#Which of the following attribute related to error tolerance and availability Reliability

#Which of the following is TRUE about heterogeneous architecture If the general structure of a systemis connected using one architecture style, and each component can use a different one, this is an example ofheterogeneous architecture

#Which is the reason when you apply component-based architecture, overall system reliability will be increased You could increase the reliability of each individual component in your own way.+3

#Which of the following attribute related to hardware independence and installability Portability

#In SOA architecture, Interoperability means what Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

#In Client-Server architecture style, there are follow types Thin-Client, Fat-Client

#Which of the followings is a style of distributed architecture Service Oriented architecture

#In MVC, said that it is easy to plug-in new or change interface views mean which of the following It allows updating the interface views with new technologies without overhang the rest of the system.

#Which of the following is NOT the benefit of Multi-tier architecture style Load balancing

#What of the following characteristic do MVC and PAC both have Support for developing interactive application

#Which of the below description is a limitation of MVC architecture style Does not fit well agent-oriented applications such as interactive mobile and robotics applications

#Time to market belong to which � the following quality attributes group Business attributes

#Which of the following is Open-Close principle Open to extension, Close to modification

#Which of the following are considered as implementation attributes interoperability, Maitainability, Portability, Flexibility

#Which of the following is not an Open-Close principle�s implication Fell free to change software code.

#UML diagram are \_\_ which are used for system analysis and design Tools

#Polymorphism implies the following All of the others

#Abstraction via inheritance is one effective way to achieve to ope-close principle True

#Which of the following is NOT the role of architects Determine market trends or needs evaluation

#Which of the following structures describle the dynamic properties of software architecture Software runtime structure

#At software development time, the software alement are-- Source code moudles or files which have been assigned functional and non-functional attributes

#Architecture design is aboyt choosing the right single architecture style for a project False

#Which view in �4+1� view model indentifies software modules and their boundaries. Interfaces, external environment, usage scenarios, etc. Logical view

#Object-oriented design is design methoddology true

#Which of the following notations is used to support the process view Activity Diagram

#Which od the following diagram is a Structural diagram Class diagram

#In a software architecture, a process, object, service or aninstance of softwarecomponenr is \_\_ A software element

#Which is NOT a structure which can be described in a software architecture Operation structure

#Which od the following is NOT TRUE about Detailed design step We will describe user accessible components only in this step

#Batch-Sequence is one of the architecture styles True

#The purpose of the software analysis phase is to produce a software requirement specification true

# Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem - Various design strategies

# Software quality attributes must satisfy functional requirements False

# The CRC card method is used to identify the responsibilities of each class True

# Which of the following are considered as Runtime attributes Availability, Security, Performance, Usability

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors� �HumanPlayer�, An object named �Human� whose class is �player�

# What is an architecture design space Design alternatives that can support fun�

# Which are the categories of operations that a class can provide constructor, destructor, accessor, mutator

# Architecture styles contribute to software quality attributes True

# For software project resource allocation, the software element are Specific manipulation (Design, implementation, debug�.

# Bassed on connector�s information carrier, the connectors in software archete.. Variable, environment resource, method, message

# Which of the following is a principle of Object Ori Polymorphism

# Which is the following diagram called State machine diagram

# Which of the following is not True about architectural design step We will specify the internal details of each�

#At software deployment time, the software element are The executable version of the project modules and files

# Which of the following notations is used to support the physical view None of the others

# In UML 2.0, which of the following is true Sequence diagram describes time sequence of messages passed ..

# Use case diagrams are generated in the early stages of the software design life cycle, whereas deploy True

# Which of the following is the correct order of object oriented design step 1-2-4-3 (CRC-Construct-Build-Class)

# Software architecture design is bassed on the software requirement True

# which of the design below is better (b)

#Agents in the repository architecture normally do not talk with each other directly, except though the data storeTrue

#An event can be either visible or invisibleTrue

#Both Sequential and Parallel processing are supported byPipe and Filter architecture

#COBOL is widely used to implement batch sequentialTrue

#Coupling in message-driven architecture is even looser than in event-driven architectureTrue

#Facts are installed in the Blackboard component of the blackboard architectureTrue

#FPT University's CMS site is an example of repository designTrue

#Hierarchical architecture is a procedure-oriented design paradigm onlyFalse

#Implicit notification is often used in blackboard architectureTrue

#Java can be used to implement a pipe and filter design systemTrue

#Message-based architecture is appropriate for a compiler in an IDE designFalse

#Multiple event targets can register with same event sourceTrue

#Only directly adjacent layers can invoke each other's method in a layered architecture.False

#Rule-based knowledge is installed in the blackboard component of the blackboard architectureFalse

#The control flow in batch sequential is implicitTrue

#The control flow in pipe and filter is explicitTrue

#The master-slave architecture is a specialized form of main-subroutine architectureTrue

#The testing of synchronous architecture is more straightforward than asynchronous architectureTrue

#The yellow page of web service is an example of repository designTrue

#There are data sharing (shared data) among all subsystems in a data flow systemFalse

#Two modules in a data flow system can change their order without any constraintsFalse

#When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slowA client's request or a response to client must go through potentially several layers.

#Which is NOT the way to make the data flow in Pipe and Filter architectureLeave data in a center repository

#Which is the purpose of Main-Subroutine ArchitectureTo reuse the subroutines

#Which is the reasoning method that starts with the initial state of data and proceeds towards a goalForward reasoning

#Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems (Choose the best one)Blackboard Architecture

#Which of the following are not benefits of batch sequentialAll of the others

#Which of the following architecture is suitable for the embedded system software designProcess-Control Architecture

#Which of the following are benefits of Non-buffered Event-based architectureFramework availability, Reusability of components, Possibility of parallel execution

#Which of the following are not benefits of pipe and filterInteractive

#Which of the following is buffer-based software architecturePublish-Subscribe Messaging (P&S)

#Which of the following is one of the benefits of asynchronous architectureLoose coupling of modules

#Which of the following is the limitation of Repository Architecture StyleHigh dependency between data structure of data store and its agents.

#Which of the following is the limitation of Repository Architecture StyleOverhead cost of moving data on network if data is distributed

#You will apply the batch sequential architecture whenDeveloping a system where intermediate file is a sequential access file.

# �A� character in �SAPCO� is which of the following? | Aesthetic

# (1) is better because of which following? | Easy expansion

The \_\_\_\_\_\_\_\_\_\_ pattern has two primary criteria for applicability: | Singleton

# A Component is NOT\_\_\_. Which is the best choice?| A whole system which could be executed independent

# A UML diagram must provide a complete view of the entire software system. | True.

# A \_\_\_ is a collection of computational and storage devices connected through a communications network. | Distributed system

# A component architecture can be derived from use case analysis and business concept diagram. | True.

# A component is a class or an object. | False.

# A core type component does not depend on any other classes. | True.

# A customizable user interface is not a good style since it will confuse users. | False.

# A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals. | True.

# A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False.

# A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | False.

# ADL can produce target code. | True.

# ADL is a programming language. | False.

# ADL is used only for software architecture specification. | False.

# ATAM is which of the following methods? | Architecture Trade-off Analysis Method

# Abstraction via inheritance is one effective way to achieve the open-close principle | True

# According to IEEE Standard 1471, The system architecture is \_\_\_\_ | C. A collection of components organized to accomplish a specific function or set of functions.

# According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be? | B.Method

# According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | B. Blocking

# Activity diagrams are used to support \_\_\_\_ | C. The process view

# Activity diagrams are used to support the process view. | True.

# Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

# An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True.

# An event can be either visible or invisible | True

# An interaction overview diagram is based on all low-level interaction diagrams. | True.

# Architects use\_\_\_in sofware construction to divide and conquer the complexities of a problem domain to solve the problem.| Various design strategies

# Architecture design is about choosing the right single architecture style for a project | F

# Architecture design is about choosing the right single architecture style for a project | False

# Architecture styles contribute to software quality attributes | True

# Architecture styles contribute to software quality attributes. | True

# Asynchronous message invocation can be expressed in sequence diagrams. | True.

# At software developement time, the software element are| source code modules or files which...

# At sofware deployment time, the sofware element are\_\_\_| The executable version

# Availability refers to \_\_\_\_ | D. The ability of a system to be available 24x7

# Based on connector's information carrier, the connectors in software architecture might be classification into | Variable, Enviroment resource, Method, Message

# Batch Sequence Architecture| Batch Sequence Architecture

# Batch sequential architecture is general more time efficient then pipe and filter | False

# Batch sequential architecture is generally more time efficient than pipe and filter.| False.

# Below diafram is class diagram of the Event-based architecture style. which of the following is the best choice? | (1): Event; (2): Event Listener

# Blackboard architecture is difficult to debug and test. | True

# Blackboard architecture is difficult to debug. | True.

# Both Sequential and Parallel processing are supported by| Pipe and Filter Architecture

# CCM is a target technology for component technology. | True.

# COBOL is widely used to implement batch sequential | True

# COBOL is widely used to implement batch sequential. | True.

# CORBA is an example of the broker architecture. | True.

# Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter. | False.

# Choose the correct Software Architecture Design guideline | Think of what to do before thinking of how to do it

# Choose the correct statement | Class diagram shows how classes are statically related, but not how class dynamically interact with each other.

# Choose the correct statement | Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

# Choose the correct statement | Runtime connector in software runtime structure inherit attributes from source code structure without any extension

# Choose the correct statement | Time to market attribute refers to the time it takes from requirement analysis to the date product is released

# Choose the incorrect statement | Inheritance relation is another name of composition relation

# Choose the incorrect statement | Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

# Choose the incorrect statement. | C. UML diagram could be group into 3 major categories: Structural, Behavioral and Deployment.

# Client-server architecture in general is more scalable than the multi-tier model | False

# Client-server architecture in general is more scalable than the multi-tier model. | False.

# Client-server architecture is general is better availability than the multi-tier model | False (correct)

# Compared with Serveice Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following? | Allows stateful service

# Component deployment is a good practice in a layered architecture | True

# Component deployment is a good practice in a layered architecture. | True (correct)

# Component deployment is a good practice in a layered architecture. | True.

# Component diagrams are based on object diagrams. | True.

# Component diagrams are used to support the development view. | True.

# Composite structure diagrams are based on object diagrams. | True.

# Concurrency control activity is part of the process view.

# Conditional branching can be represented in sequence diagrams. | True.

# Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.|False.

# Core type classes can be recognized as a new component | True

# Core type classes can be recognized as a new component. | True.

# Coupling in message-driven architecture is even looser than in event-driven architecture | True

# Deployment decisions should be reflected in early architecture designs. | False.

# Deployment diagrams are used to support the physical view. | True.

# Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

# Design-for-commonality anticipates variation without compromising commonality.|False.

# Different architecture structures have different element and connector types. | True.

# Divide-and-conquer is not a suitable methodology for architecture design. | False.

# Domain analysis identifies the various common features in a domain and their differences. | True.

# Each component may have its provided ports and required ports from other components.|True

# Each component must have its provided ports and required ports.| False.

# Element and connector attributes are derived from the project requirements. | True.

# Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | C. Component-based > Object-oriented > Functional-oriented > Service-based

# Event-based architecture is a good candidate for interactive systems with graphic user interface.| True.

# Event-based architecture is appropriate for a compiler in an IDE design | False

# Event-based architecture is difficult to test and debug | True (correct)

# Event-based architecture style is a buffered architecture | False

# FPT�s University CMS is an example of repository design | True

# Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

# For a large-scale software project, \_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness | heterogeneous architecture

# For software project resource allocation, the software element are \_\_\_\_ | A. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

# For sofware project resource allocation, the sofware element are..| Specific manipulation

# Google Map is an example of services in SOA architecture | True

# Hierarchical architecture can also be applied in any object-oriented software design. | True.

# Hierarchical architecture is a procedure-oriented design paradigm only. | False.

# Hierarchical architecture is a procedure-oriented design paradigm only.False

# Horizontal reuse refers to the use of an asset across several distinct domains or different product line. | True.

# How many different way are there to move data in P/F? | 3

# Implicit notication is often used in the MVC architecture | True

# Implicit notification is often used in blackboard architecture. | True

# Implicit notification is often used in blackboard architecture. | True.

# Implicit notification is often used in the MVC architecture. | True

# Implicit notification is often used in the MVC architecture.| True

# In Blackboard architecture, a controller takes which role? | B. It takes a bootstrap role and overall supervision control.

# In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | E. Skeleton

# In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture Style? | Client-side proxy

# In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

# In Client/Server architecture | All of the others

# In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the following? | C. The new sub-system is compatible with the corresponding input and output data format.

# In Fat-client type, the client includes which of the following processing | Presentation processing, Business Logic Processing

# In Interaction oriented software architecture, \_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice?| The data module

# In Layered architecture, the interface of each layer encapsulates \_\_ | A. All detailed service implementations in the current layer and the interfaces of the layers below.

# In MVC, said that it is easy to plug-in new or change interface views mean thich of following? | it allows updating...

# In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

# In Non-buffered Event-based architecture, how many partitions a system could be separated into? | A. 2 partitions

# In SOA architecture, Interperability means what? | Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

# In Thin-Client type, the server includes which of the following processing. | B. Data Storage Processing, Business Logic Processing

# In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

# In UML 2.0 Which of the following is true? | Sequence diagram both concurrencies and loops can be specified

# In UML 2.0, Which of the following is TRUE? | C. Sequence Diagram describes time sequence of messages passed between objects in timeline.

# In UML 2.0, which diagram describes time sequence of message passed between objects in timeline? | Sequence diagram

# In UML, a composition relationship represented \_\_ | Using a solid diamond arrowhead

# In User Interface design step, Friendliness factor consideration means what? | C. The behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

# In User Interface design step, Information representation factor consideration means what?|A. Designers must take into account the needs, experiences, and capabilities of the system users.

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression? | An object named �John� whose class is �Doctor�

# In an architecture styles, which of the following is the components defining how elements can be integrated to form the system | Constraints

# In an architecture styles, which of the following is the components that perform functions required by a system? | Elements

# In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice? | C. The view presentation module

# In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice? | B. The data module

# In interaction oriented software architecture,\_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice?| The view presentation module

# In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module below? | D. Controller module

# In user interface design step.User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

# In user interface evaluation step, we should focus on what? | The usability of the interface

# In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output data? | C. Batch sequential architecture

# Interoperability refers to \_\_ | The universal accessbility and the ability to exchange data with internal components and the outside world

# It is beneficial to integrate architecture design with the process of requirements analysis.|True.

# Java can be used to implement a pipe and filter design system. | True

# Java can be used to implement a pipe and filter design system. | True.

# Loose coupling is used between repository agents. | True.

# Main- subroutine architecture can also be applied in any object-oriented software design | True

# Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style | True

# Modifiability and expandability are essentially the same quality attribute. | False.

# Multiple event targets can register with same event source. | True

# Object-oriented design is a design methodology | True

# Object-oriented design is a design methodology. | True

# Objected-Oriented principles includes \_ | Inheritance, Encapsulation, Polymorphism

# Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False

# PAC agents are loosely couple. | True

# Pipe-and-Filter is one of the architecture styles | True

# Polymorphism implies \_\_\_\_\_ | A. The invocation of a method is determined at run time

# Polymorphism implies the following | the same operation might be have differently at run time

# Polymorphism implies the following: | All of the other

# Polymorphism principles means that \_\_ | an object can have different appearance/behaviors under different circumstances

# Portability refers to \_\_ | The level of independence of the system on software and hardware platforms

# Portability refers to \_\_\_\_ | A. The ability to modify the system and extend it conveniently.

# Product line processes are a way to institutionalize systematic reuse.| False.

# Prototyping can be used to support UI design. | True.

# Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute? | C. Efficiency D. Productivity E. Functionality

# Quality attributes could be categorized into 3 groups which are? | A. Implementation attributes, Runtime attributes, Business attributes

# RMI is an example of the broker architecture | True

# RPG is widely used to implement batch sequential | True�.

# Repository architecture and Blackboard architecture is categorized into which of the following architecture style? | Data-Centered architecture sytle

# Repository architecture design could NOT be object-oriented design | True

# Repository architecture design must also be object-oriented design. | False.

# Reusable assets are limited to code components. | False.

# Reuse is not an end in itself but a means to an end. | True.

# Rule-based knowledge is installed in the \_\_ component of the blackboard architecture | Control

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.|False.

# SAAM relies on scenarios to test an architecture design | True

# SAAM relies on use cases to test an architecture design. | False.

# SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

# Security belongs to which of the following quality attributes group? | C. Runtime attributes

# Select correct statement | Concurrency is not supported in batch-sequential architecture

# Select correct statement about inheritance | Class can inheritances more than one interface

# Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

# Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

# Select correct statement | None of the others

# Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

# Select correct statement(s) | All of the others

# Select correct statement(s): Statement 1:Good software architectural designs are based on the recursive application of the"divide-and-conquer" methodology. Statement 2: Good software architectural designs are based on the recursive application of refinement of abstractions. | Statement 1 is correct

# Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

# Select incorrect statement about module ininteraction-oriented software architecture | The dat are pository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data in itialization and system configuration actions.

# Select incorrect statement | .Data repository architecture is suitable for artificial intelligent systems and expert systems.

# Select incorrect statement | Agents in the repository architecture normally do not talk with each other directly, except though datastore.

# Select incorrect statement | JDBC is XML based

# Select the benefits of nonbuffered event-based implicit invocation architecture | All of the others

# Select the disadvantages of direct manipulation | None of the others

# Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners & Event sources

# Sequence diagrams are used to support \_\_ | The logical view

# Sequential flow control can be predetermined in batch sequential. | True.

# Sequential flow control can be predetermined in pipe and filter. | True.

# Service-oriented architecture is stateless, while component-based architecture is not.|True.

# Software Design Description includes \_ | The software architecture and the detailed design of the system.

# Software architecture = software architecture styles. | False.

# Software architecture = software architecture styles. | False

# Software architecture design involves many software design methodologies and architecture styles. | True.

# Software architecture design is based on the software requirement specification | True

# Software architecture design is based on the software requirement specification. | True

# Software architecture is a static software structure description. | False

# Software architecture is concerned only with functional requirements. | False.

# Software components do not need adaption. | False.

# Software quality attributes must satisfy functional requirements | False

# Software quality attributes must satisfy functional requirements. | False

# State machine diagram is grouped in which of following UML diagram category? | Bahavioral diagrams

# Successive sets of data, where data and operations on it are independent of each other. | data flow

# System and network configuration decisions are part of the physical view. | True.

# The "Look and Feel" feature is well supported in the MVC architecture.| True

# The "Look and Feel" feature is well supported in the MVC architecture.| True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.| True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.|True

# The Architectural Decision Procedure includes following steps: (1) Quantify the quality attributes (2): Determine the required quality attributes in requirement analysis (3): Compute the weighed sum. Which is the correct order of these steps? | 2=>1=>3

# The CRC card method in used to identify the responsibilities of each class | True

# The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.|True.

# The MVC models suggest the separation of the user interface from the logic of the software system? | True.

# The PAC architecture is a hierarchically structured software architecture | True

# The PAC architecture is a hierarchically structured software architecture. |True

# The PAC architecture is a hierarchically structured software architecture.| True

# The Yellow Page of web service is an example of repository design. | True.

# The abstraction and presentation components in a PAC agent do not talk to each other directly|True

# The acronym SAPCO describes | The satisfactory principles of user interfaces

# The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

# The below image is a snapshot of which architecture style belowing? (View, A View 1, A View 2, ..) | MVC architecture

# The below image is a snapshot of which architecture styles following? (4 hcn cau truc giong nhau, ) | PAC architecture

# The below image is a snapshot of which architecture styles followuing? | Repository architecture

# The benefit of the broker architecture | All of the others

# The callback method is typically used in a main-subroutine architecture. | False.

# The constituent elements of software architecture are software elements and their connections. | False

# The constituent elements of software architecture are software elements and their connections. | False

# The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions

# The constituent parts the architecture of a system are: | Its components, connectors, and the rules governing their interactions.

# The control flow in batch sequential is implicit. | True

# The control flow in batch sequential is implicit. | True.

# The control flow in pipe and filter is explicit. | True

# The control flow in pipe and filter is explicit. | True.

# The data in the Abstraction component of a PAC agent is passive. | True

# The data in the Abstraction component of a PAC agent is passive.| True

# The data in the Model component of the MVC architecture is active | True

# The data in the Model component of the MVC architecture is active| True

# The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. | passive/active

# The facts or hypotheses are stored in the knowledge source component of a blackboard system.|False.

# The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.|Blackboard

# The following diagram is a description of which architecture style? (xanh, tim, do) | MVC architecture

# The following diagram is a description of which architecture style? (--> control flow) | Master-Slave architecture

# The following diagram is a description of which architecture style?| 3 angent -> data source. DAP AN: REPOSITORY

# The following image is an example of (Database, Extractor, Sorter, Splitter...) | Pipe-and-Filter architecture

# The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

# The following image is an example of one of architecture style below. Which is the best choice?|Process-Control architecture

# The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach. | True.

# The image below is an example of static style of user interce�slaout? Which which is the correct answer? | It�s 1D layout

# The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?| all of the others

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True.

# The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?| 3 major partitions � Data module, Control module, Presentation Module

# The key point of the interaction oriented software architecture is \_\_\_ Which is the best answer| In the separation of user interaction from data abstraction and business data processing

# The look and feel of a user interface can be defined by using engineering rules. | False.

# The master-slave architecture is a specialized form of main-subroutine architecture | True

# The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ | composite diagram

# The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions:\_\_\_\_\_\_\_and. | evene sources/event receivers

# The outcome of Object Oriented Analysis stage are \_\_ | Requirement Specification, Initial logic structure of the system

# The provided interface ports may be in synchronous or asynchronous modes. | True

# The purpose of the software design phase is to produce a software requirement specification. | False

# The purpose of the software design phase is to product a software requirement specification|False

# The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

# The software sub modules and their interfaces are described in the logical view. | True.

# The testing of synchronous architecture is more straightforward than asynchronous architecture.|True

# The usability of a user interface is enhanced by consistency and integration. | True.

# The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. | Master-slave architecture

# There are data sharing (shared data) among all subsystems in a data flow system. | False.

# There are two categories of data-centered architecture:\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | blackboard & repository

# There is always an architecture design that can meet all requirements. | False.

# There is always only one architecture design that can meet all requirements | False

# There is data sharing between all layers in a layered architecture. | False.

# There is tight dependency of agents on the data store in the repository architecture. | True.

# Three Object Oriented Principles are which of following? | D. Encapsulation, Inheritance, Polymorphism

# Three-tier and Client-Server architecture| Three-tier and Client-Server architecture

# To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-of in this case? | Tradeoff between scalability and performance

# Traffic control agents in a city traffic management system may be designed using PAC. | True

# Traffic control agents in a city traffic management system may be designed using PAC.| True

# Two modules in a data flow system can change their order without any constrains. | False

# Two modules in a data flow system can change their order without any constraints. | False.

# Typical OO languages include the following: | All of the others

# UML diagrams are \_\_\_\_ which are used for system analysis and design | C. Tools

# UML diagrams are used for system analysis and design | True

# Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.| True

# User Interface Evaluation does NOT focus on which of the following features? | Only the tailor-able of the user interface

# User interface refers to static components and their layout, not dynamically displayed information. | False.

# Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. | Hierarchical

# Web service is an example of SOA architecture. | True.

# Web service is an example of hierarchy architecture design. | True.

# What is a class involved in accomplishing the responsibility of a class called in CRC modeling?|Collaboration

# What is an arechitecture design space| dai nhat thi chon

# What is called in CRC modeling a class that is involved in accomplishing the reponsibility of a class? | Collaborator

# What is the CORRECT statement about virtual repository? | D. A virtual repository is built up on the top of multiple physical repository

# What is the INCORRECT statement about distributed repository? | B. All data are centralized

# What of the following statement about the characteristic in Service-oriented and Broker are Correct?| Both are hard

# When do we use pipe & filter architecture? | All of the others

# When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level

# When you apply Layered Architechture style into system architecture design , why run time performance of the system might be slow| A client request or a response to client must go through potentially several layrers.

# When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC architecture

# Which architecture style supports loose coupling between legacy systems and modern systems for integration development? | A. Buffered message-based architecture

# Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

# Which are the different between component-oriented design and object-oriented design? | All of the others

# Which diagram is equivalent to a sequence diagram? | Collaboration diagram

# Which is NOT a software structure that software architecture can be described with? | C. State structure

# Which is NOT a structure which can be described in a software architecture? | Operation structure

# Which is a deployable software package that can provide services to its clients? | Component

# Which is dynamic diagram? | Use-case diagram

# Which is not a structure which can be described in a sofware architecture?| Dynamic structure

# Which is not component in interaction-oriented software architecture? | Data repository

# Which is not correct way to use a component? | lookup in EJB

# Which is the CORRECT statement about a pipe? | B. A Pipe moves a data stream from one filter to another.

# Which is the benefit of MVC? | Multiple views synchronized with same data model

# Which is the correct order in Object oriented design process? | Identify => Build=>Construct=>Class overview=>Class Detail

# Which is the correct order of these steps? | Determine� => Quantify� => Compute�

# Which is the following diagram called? (customer, shipping, payment) | Package Diagram

# Which is the following diagram called? (proposed) | State machine diagram

# Which is the following diagram called?| a.Class diagram b.Package diagram c.Component diagram d.Deployment diagram e.Object diagram

# Which is the incorrect guide for mapping runtime elements? | If an element is re-entrant it can not be implemented by a thread or a process

# Which is the most appropriate architecture style to develop a radar system like below? | PAC

# Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

# Which is the purpose of Main-Subroutine Architecture?| To reuse the subroutines

# Which is the reason when you apply component-based architecture, overall system reliability will be increased?| you could increase the reliability....

# Which is the reason why software reuse is critical? | A. All of the others

# Which is the statement you can describe about MVC architecture style? MVC is now very popular

# Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate response? | D. Buffered message-based architecture

# Which kind of UML diagram can be expressed asynchronous message invocation? | sequence diagram

# Which kind of class is not used in ananalysis class diagram? | Concrete class

# Which of below description is a benefit of PAC architecture style?| Complete separation

# Which of following is Not True about Detailed design step?| We will describe...

# Which of following software system cannot be designed using PAC? | Compiler

# Which of the design below is better| Co 3 draw o duoi

# Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

# Which of the following are PAC architecture's benefits? | B. All of the others

# Which of the following are benefits of Non-buffered Event Based architecture| Framework availabity ,Reusablity of components, Possibility of parallel execution

# Which of the following are benefits of object oriented design? | All of the others

# Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

# Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usabilty

# Which of the following are considered as implementation attributes? | Interoperability, maintainability, portability, flexibility

# Which of the following are not benefits of pipe and filter? | Interactive.

# Which of the following attribute related to error tolerance and avaibility?| Reliability

# Which of the following attribute related to hardware independence and installability?| Portability

# Which of the following attribute related to time and space?| Efficiency

# Which of the following diagram called? | Sequence diagram (User, HomListPage, BookingPage)

# Which of the following diagram is NOT an structural diagram | Sequence diagram

# Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation

# Which of the following is NOT TRUE about Architectural design step| Wel will describe the interconnection the components which visible to stakeholders

# Which of the following is NOT a benefit of Component architecture | Performance

# Which of the following is NOT a buffer-based software architecture | Peer-to-Peer Connection

# Which of the following is NOT a step in Object oriented design process? | Design of a UML Use-case diagram

# Which of the following is NOT a typical style of distributed architecture? | MVC

# Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture C. Client-Server architecture

# Which of the following is NOT buffer-based? | Callback

# Which of the following is NOT the benefit of Broker architecture style? | A. Easy in testing.

# Which of the following is NOT the benefit of Broker architecture style? | Easy in testing

# Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

# Which of the following is NOT the benefit of the MVC architecture? | Supports multiple in dependent agents

# Which of the following is Open-Close principle in Object-Oriented Paradigm? | Open to extension, Close to modification

# Which of the following is TRUE about buffered message system? | B. All of the others

# Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

# Which of the following is TRUE fot implementing the separation of the user interface from the logic of software system? | The same logic can be accessed by different kinds of user interfaces

# Which of the following is TRUE? | Hardware independence does not imply software independence

# Which of the following is a INCORRECT description about component in Component-based architecture? | C. A Component is NOT a modular.

# Which of the following is a PAC architecture benefit? | All of the others

# Which of the following is a benefit of asynchronous architecture? | Loose coupling of modules

# Which of the following is a benefit of component-based architecture? | C. Independency and flexible connectivity of components

# Which of the following is a disadvantage of hierarchical architecture? | Overhead.

# Which of the following is a feature of object oriented methodology? | Inheritance

# Which of the following is a limitation of Layered architecture? | D. Lower runtime performance

# Which of the following is a limitation of Layered architecture? | Lower runtime performance

# Which of the following is a limitation of Non-buffered Event-based architecture? | Reliability and overhead of indirect invocations

# Which of the following is a limitation of component architecture? | Adaption of components

# Which of the following is a typical design domain for the MVC architecture? | Web server site application

# Which of the following is a typical design domain of blackboard architecture? | AI system.

# Which of the following is a typical design domain of the MVC architecture? | Web server site application

# Which of the following is an Open-Close principle's implication? | A. Separate interface and implementation

# Which of the following is an Open-Close principle's implication? | Separate interface and implementation

# Which of the following is an architecture design evaluation methodology? | SAAM

# Which of the following is buffer-based software architecture? | A. Peer-to-Peer connection

# Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

# Which of the following is not a benefit of hierarchical architecture? | Concurrency.

# Which of the following is not a benefit of repository architecture? | Concurrency.

# Which of the following is not a benefit of the MVC architecture? | Support multiple independent agents

# Which of the following is not a benefit of the MVC architecture?| Support multiple independent agents

# Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

# Which of the following is not an open-close principles�s implication? | Feel free to change software code.

# Which of the following is not considered as event-driven? | Callback

# Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

# Which of the following is one limitation of Client/Server Architecture? | Server availablity and reliability

# Which of the following is one of advantages of Component-based architecture? | Productivity fot the software development and future software development

# Which of the following is open-close principle? | Open to extension, close to modification

# Which of the following is the INCORRECT statement about passive filter? | B. It lets connected pipes to push data in and pull data out.

# Which of the following is the advantage of broker architecture? | Changeability and extensibility

# Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

# Which of the following is the benefit of Blackboard Architecture Style? | B. Reusability of knowledge source agents

# Which of the following is the benefit of layered architecture? | Incremental software development based on increasing levels of abstraction

# Which of the following is the correct statement about Component-based architecture?| - it divides the problem into sub-problem each associated with component partitions

# Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

# Which of the following is the limitation of Reporsitory Architecture Style? | Data store reliability and availability

# Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue

# Which of the following is the main motivation of Component-based architecture?| Component reusability

# Which of the following is true about buffered message system? | All of the others

# Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

# Which of the following is true? | All of the others

# Which of the following is true? | All of the others (web services are examples of service-oriendted architecture, the application domain of process control style includes real-time systems, web application are examples of client-server architecture)

# Which of the following is typical design domain for the MVC architecture? | Web client site application

# Which of the following is used to evaluate architecture design? | A. All of the others

# Which of the following is used to evaluate architecture designs? | ALL

# Which of the following notations is not used to support the logical view? | Deployment diagram

# Which of the following notations is used to support the logical view? | All of the others

# Which of the following notations is used to support the physical view? | Non of the others

# Which of the following statement is TRUE? | D. The usability of a user interface is reduced by consistency and integration.

# Which of the following statement is TRUE? | One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

# Which of the following statement is TRUE? | THe usability of a user interface is enhanced by consistency and integration

# Which of the following statement is TRUE? | Three-tier is a variant of Client-Server architecture

# Which of the following statement is a correct description about the job of an architecture designer?| Exhaust all possible solutions, pick up the best one

# Which of the following statements is TRUE? | One of benefits of Pipe and Filter architecture is Concurrency

# Which of the following statements is TRUE? | The usability of a user interface is enhanced by consistency and integration.

# Which of the following structures describe the dynamic properties of software architecture?|Software runtime structure

# Which of the following structures describe the static properties of software architecture?|Software code structure.

# Which of the followings are categorized into Hierarchical architecture styles? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

# Which of the followings are not benefits of batch sequential? | Interactive.

# Which of the followings is NOT the benefit of distributed architecture? | Testability

# Which of the followings is NOT the benefit of hierarchical architecture? | concurrency

# Which of the followings is NOT the benefit of repository architecture? | Loose coupling

# Which of the followings is a style of distributed architecture? | Master-Slave architecture

# Which of the followings is a style of distributed architecture? | Multi-tier architecture

# Which of the followings is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

# Which of the followings is one of distributed architecture? | Service oriented architecture

# Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

# Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

# Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

# Which the reasoning method that starts with the initial state of data and proceeds towards a goal| Forward Reasoning

# Which tool can be used to describe an architecture style? | "4+1" view model

# Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc. | Logical view

# Which view in "4+1" view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc.? | A. Logical view

# With a good software design, Which is the benefit we will get? | It helps to coordinate development teams to work together orderly

# You will apply the batch sequential architecture when? | A. Developing a system where intermediate file is a sequential access file.

# You will apply the batch sequential architecture when?| Developing a system where intermediate file is a sequential access fileWhich is NOT the way to make the data flow in Pipe and Filter architecture| Leave data in a center repository

# \_\_\_\_\_\_\_\_\_ is a modular(cohesive), deployable(portable), replaceable(plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

# \_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world. | Interoprrability

# \_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures. | Client-server model

# what of following characteristic do MVC and PAC both have?| Support for developing

(1): Quantify the quality attributes

(2): Determine the re required quality attributes in requirement analysis

(3): Compute the weighted sum

1 Which are the different between component-oriented design and object-oriented design? | | d. All of other

1. The constituent elements of software architecture are software elements and their connections. | False

1. Which of the following are benefits of OO design? | All of the above

1. Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

1. Which of the following is not one of the benefits of distributed architecture? | True Supports multiple views

1. Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

1. Which of the following is true about buffered message system? | Buffered message system is easy to debug

1. Which of the following is used to evaluate architecture designs? | ALL

1. Which of the following notations is used to support the logical view? | All of the above

1. Which of the following structures describe the static properties of software architecture? | Software (code,deployment,management) structure

1.A user interface is mainly for accepting inputs, conducting computations, and displaying outputs | False

1.A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.| Fasle

1.Activity diagrams are used to support�� | The process view

1.Activity diagrams are used to support | The process view

1.Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecure styles? (�>� is better) | Client-Server > Broker > Service-oriented

1.For what project resource allocation, the software element are \_\_\_\_ | Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

1.The constituent elements of software architecture are software elements and their connections | False

1.The constituent elements of software architecture are software elements and their connections| False

1.The constituent parts of the architecture of a system are� | Its components, connectors, and the rules governing their interactions

1.The constituent parts the architecture of a system are:| a. Its components, connectors, and the rules governing their interactions

1.Which of the following are benefits of OO design? | All

1.Which of the following are not benefits of pipe and filter? | Interactive

1.Which of the following are not benefits of pipe and filter?| Interactive.

1.Which of the following is NOT the benefit of multi-tier architecture style? | Load balancing (correct)

1.Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing (correct)

1.Which of the following is not a benefit of component architecture? | Concurrency

1.Which of the following is not a benefit of hierarchical architecture? | Concurrency

1.Which of the following is not a benefit of hierarchical architecture?| Concurrency.

1.Which of the following is not a benefit of repository architecture? | Concurrency

1.Which of the following is not a benefit of repository architecture?| Concurrency.

1.Which of the following is not a benefit of the MVC architecture? | Supports multiple independent agents

1.Which of the following is not one of the benefits of distributed architecture?

1.Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

1.Which of the following is used to evaluate architecture designs? | ALL

1.Which of the following is used to evaluate architecture designs?| d. ALL

1.Which of the following notations is used to support the logical view? | All

10 Which is dynamic diagram? | Use-case [Activity,State-machine,sequence,interractin,communication, time]

10. Blackboard architecture is difficult to debug. | True

10. Prototyping can be used to support UI design, | True

10. Sequential flow control can be predetermined in batch sequential. | True

10. Software architecture design is based on the software requirement specification. | True

10. The PAC architecture is a hierarchically structured software archi- tecture. | True

10. The facts or hypotheses are stored in the knowledge source com- ponent of a blackboard system. | False

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components. | True

10. The master-slave architecture is a specialized form of main- subroutine architecture. | True

10. The notification of events or messages is different from local or remote method invocation. | True

10. To conform to the open-closed principle the use of global variables should be minimized. | True

10. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

10.Blackboard architecture is difficult to debug | True

10.Blackboard architecture is difficult to debug| True

10.Deployment diagrams are used to support the physical view.| True.

10.Prototyping can be used to support UI design | True

10.RPG is widely used to implement batch sequential | True�.

10.RPG is widely used to implement batch sequential| A- True

10.Reusable assets are limited to code components | False

10.Reusable assets are limited to code components.| False

10.Sequential flow control can be predetermined in batch sequential | rue

10.Sequential flow control can be predetermined in batch sequential.| True.

10.Software architecture design is based on the SRS | True

10.The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.| True

10.The Java programming language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces | True

10.The PAC architecture is a hierarchically structured software architecture | True

10.The constituent parts of the architecture of a system are which of the following? | Its component, connectors, and the rules governing their interactions.

10.The constituent parts of the architecture of a system are which of the following| Its component, connectors, and the rules governing their interactions

10.The facts or hypotheses are stored in the knowledge source component of a blackboard system | False

10.The facts or hypotheses are stored in the knowledge source component of a blackboard system.| False.

10.The interaction operations in the use case diagrams should be included as part of provided interfaces of components | True

10.The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True.

10.The master-slave architecture is a specialized form of main-subroutine architecture | True

10.The master-slave architecture is a specialized form of main-subroutine architecture.| True.

10.The notification of events or messages is different from local or remote method invocation | True

10.To conform to the open-closed principle the use of global variables should be minimized | True

10.UML diagrams are \_\_\_ which are used for system analysis and design | Tools

10.Which is the most appropriate architecture style to develop a radar system like below? | PAC

100.Which of the followings is not typical design domain of the asynchronous architecture| Web server site application

101.Which of the following is not a benefit of the MVC architecture| Supports multiple independent agents

102.Which of the following is a typical design domain for the MVC architecture| Web server site application

103.Which of the following is not one of the benefits of distributed architecture| Supports multiple views

104.Which of the following is not a typical style of distributed architecture| Hierarchical structure

106.Which of the following is not a benefit of component architecture| Performance

108.Which of the following is true about heterogeneous architecture| If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

11 The static and runtime structures are based on the same element types | F

11. ADL is a programming language, | False

11. Multiple consumers can consume a message on a message queue. | True

11. Which of the following diagram called? | Sequence diagram

11.ADL is a programming language| False

11.Component diagrams are used to support the development view.| True.

11.Event-based architecture style is a buffered architecture | False (correct)

11.Event-based architecture style is a buffered architecture| False

11.Multiple consumers can consume a message on a message queue | True

11.Software components do not need adaptation | False

11.Software components do not need adaption.| b. False

11.The below image is a snapshot of which architecture styles following? | Event-based architecture

11.Which diagram equivalent to a sequence diagram? | Collaboration diagram

11.Which diagram equivalent to a sequence diagram| Collaboration diagram

11.Which of the following is NOT TRUE about Architectural design step? | we will specify the internal details of each component

11.Which of the following is not one of the benefits of distributed architecture? | Supports multiple views

11.Which of the following is not one of the benefits of distributed architecture?| Supports multiple views

114.In SOA architecture, Interoperability means what| Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

118.SAPCO stands for which| It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other

12 The static and runtime structures are based on the same connector types | F

12. ADL can produce target code. | True

12. An event can be declared on the fly. | True

12. Polymorphism principles means that\_\_\_\_\_\_\_ | An object can have different appearance/behaviors under different circumstances.

12.ADL can produce target code | True

12.An event can be declared on the fly | True

12.Horizontal reuse refers to the use of an asset across several distinct domains or different product line.| a. True

12.Horizontal reuse refers to the use of an asset across several distinct domains or different product lines | True

12.Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False (correct)

12.Only directly adjacent layers can invoke each other�s methods in a layered architecture.| B- False

12.The software sub modules and their interfaces are described in the logical view.| True.

12.Which of following structures describe the dynamic properties of software architecture? | Software runtime structure.

12.Which of the following is NOT benefit of distributed architecture? | Supports multiple independent argents

12.Which of the following is NOT benefit of distributed architecture| Testability

12.Which of the following is not a typical style of distributed architecture? | Hierarchical architecture.

12.Which of the following is not a typical style of distributed architecture?| Hierarchical architecture.

12.Which of the following notations is used to support the process view? | Activity diagram

12.Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one.

121.In user interface evaluation step, we should focus on what| The usability of the interface

129. UML diagrams are \_\_\_\_\_\_\_\_ which are used for system analysis and design| Tools

13 Architectural designs should not consider performance attributes | F

13. ADL is used only for software architecture specification. | False

13. Message-based architecture is appropriate for a compiler in an IDE design. | False

13. Which of the following is NOT the benefit of distributed architecture? | Testability

13.ADL is used only for software architecture specification | False

13.CORBA is a good implementation example of \_\_\_ | Broker Architecture

13.Client-server architecture in general is more scalable than the multi-tier model. | False.

13.Client-server architecture in general is more scalable than the multi-tier model.| False.

13.Concurrency control activity is part of the process view.| True

13.Different architectures structures have different element and connector types | True

13.Java can be used to implement a pipe and filter design system. | True (correct)

13.Java can be used to implement a pipe and filter design system| A- True

13.Message-based architecture is appropriate for a compiler in an IDE design | False

13.Which of the design below is better? | b (h�nh nh�n don gi?n hon)

13.Which of the following architecture is suitable for the embedded system software design? | Pipe and filter architecture

13.Which of the following architecture is suitable for the embedded system software design| Process-Control Architecture

14 JDBC is XML based | F

14. UML diagrams are used for system analysis and design. | True

14. Which of the following is a limitation of Non-Buffered Event-based architecture? | Reliability and overhead � indirect invocations

14.CORBA is an example of the broker architecture. | True.

14.CORBA is an example of the broker architecture.| True.

14.Element and connector attributes are derived from the project | True

14.System and network configuration decisions are part of the physical view.| True.

14.The control flow in batch sequential is implicit. | True (correct)

14.The control flow in batch sequential is implicit.| True

14.UML diagrams are used for system analysis and design | True

14.When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development? | PAC architecture

14.When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development| PAC architecture

14.Which of the following is a principle of Object Oriented methodology? | Polymorphism

14.Which of the following is an architecure design evaluation methodology? | SAAM

15 WSDL is in XML format | T

15. Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC. | True

15. Which of the following are considered as Business attributes? | Time to market, Lifetime, Cost

15.Architecture design is about choosing the right single architecture style for a project | False

15.Software architecture is concerned only with functional requirements.| False.

15.The following image is an example of one of architecture style below. Which is the best choice? | Process-Control architecture

15.Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC | True

15.Web service is an example of SOA architecture. | True.

15.Web service is an example of SOA architecture.| True.

15.Which of the following are considered as Implementation attributes? | Interoperability, Maintainability, Portability, Flexibility

15.Which of the following attribute related to time and space? | Efficiency

15.Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message? | Based on connector�s information carrier

15.Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message| Based on connector�s information carrier

16 Web.config is in XML format | T

16. Composite structure diagrams are based on object diagrams. | True

16. When will you apply the Process-Control architecture? | Developing a system which needs to maintain an output data at a stable level.

16.ATAM is which of the following methods? | Architecture Trace-off Analysis Method

16.ATAM is which of the following methods| Architecture Trace-off Analysis Method

16.Composite structure diagrams are based on object diagrams | True

16.Divide and conquer is not a suitable methodology for architecture designs | False

16.In Thin-Client type, the server includes which of the following processing. | Data Storage Processing, Business Logic Processing

16.In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

16.In Thin-client type, the server includes which of the following processing| C- Data storage processing, Business Logic Processing

16.Prototyping can be used to support UI design.| True.

16.Which of the following diagram is a Structural diagram | class diagram

17 SOAP request and response is in XML format | T

17. Component diagrams are based on object diagrams. | True

17. The constituent parts of the architecture of a system are which of the following? | Its components, connectors, and the rules governing their interactions.

17.ADL is a programming language.| False.

17.Component diagrams are based on object diagrams | True

17.Deloyment decisions should be reflected in early architecture | False

17.Implicit notification is often used in blackboard architecture. | True (correct)

17.Implicit notification is often used in blackboard architecture| A- True

17.Repository architecture and Backboard architecture is categorized into which of the following architecture style? | Data-centered architecture style

17.Repository architecture and Backboard architecture is categorized into which of the following architecture style| Data-centered architecture style

17.Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

17.Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents.

18 Which is the most suitable diagram to describe the lifecycle of objects | c. Object diagram

18. A UML diagram must provide a complete view of the entire soft- ware system. | True

18.A UML diagram must provide a complete view of the entire software system | True

18.ADL can produce target code.| True.

18.ATAM is which of the following methods? | Architecture Trade-off Analysis Method

18.The below image is a snapshot of which architecture styles following? | MVC architecture

18.The control flow in pipe and filter is explicit. | True (correct)

18.The control flow in pipe and filter is explicit.| A- True

18.Which of the following is TRUE?| c. Hardware independence does not imply software independence

18.Which of the following is the correct order of Object Oriented design steps? CRC Card Approach -> Construct Interaction Diagram->Build State Chart->Class Design

18.Which of the following notations is used to support the logical view? | All of the above

19 The facts or hypothesis are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system. | Knowledge source

19. A component is a class or an object. | False

19. Which of the following is a limitation of Layered architecture? | Lower runtime performance

19.A component is a class or an object | False

19.ADL is used only for software architecture specification.| False.

19.FPT�s University CMS is an example of repository design| True

19.The architectural Decision Procedure includes following steps:

19.Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle | true

19.Which of the following is TRUE? | Time efficiency is usually the most important quality attribute

19.Which of the following is one limitation of Client/Server architecture| Server availability and reliability

19.Which of the following notations is used to support the physical view? | None of the above

2 There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | blackboard ,repository

2 Which of the following is a disadvantage of hierarchical architecture? | Overhead

2. The below image is a snapshot of which architecture styles following? | Repository architecture

2. Which of the following are features of OO methodology? | Inheritance

2. Which of the following is a typical design domain for the MVC architecture? | Web server site application

2. Which of the following is not a benefit of component architecture? | Performance

2. Which of the following is not a typical style of distributed architecture? | Hierarchical structure

2. Which of the following is true about heterogeneous architecture? | If the general structure ...

2. Which of the following notations is used to support the physical view? | None of the above

2. Which of the following structures describe the dynamic proper- ties of software architecture? | Software runtime structure

2. Which of the followings are not benefits of batch sequential? | Interactive

2. Which of the followings is not typical design domain of the asyn- chronous architecture? | Hierarchical structure

2.Chapter 3 of this book, on �models for software architecture�, has nothing to do with user interfaces described in this chapter. | False

2.Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter.| False

2.Domain analysis identifies the various common features in a domain and their differences | True

2.Domain analysis identifies the various common features in a domain and their differences.| True

2.Event-based architecture is difficult to test and debug | True (correct)

2.Event-based architecture is difficult to test and debug| A- True (correct)

2.Object-oriented design is a design methodology | true

2.Software architecture design involves many software design methodologies and architecture styles | True

2.Software architecture design involves many software design methodologies and architecture styles.|True.

2.What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug.

2.Which of the following is a disadvantage of hierarchical architecture? | Overhead

2.Which of the following is a disadvantage of hierarchical architecture?| Overhead.

2.Which of the following is a typical design domain for the MVC architecture? | Web server site application

2.Which of the following is a typical design domain of blackboard architecture? | AI system

2.Which of the following is a typical design domain of blackboard architecture?| AI system.

2.Which of the following is not a benefit of component architecture? | Performance

2.Which of the following is not a typical style of distributed architecture?

2.Which of the following is true about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

2.Which of the following is true about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.

2.Which of the following notations is used to support the physical views? | None

2.Which of the followings are not benefits of batch sequential? | Interactive

2.Which of the followings are not benefits of batch sequential?| Interactive.

2.Which of the followings is not typical design domain of the asynchronous architecture | Hierarchical structure

2.With a good software design, which is benefit we will get | It helps to coordinate development teams to work together orderly

2.With a good software design, which is benefit we will get? | It leads the risk in software production more serious

20 Which of the following notations is not used to support the logical view? | Deployment diagram

20. Asynchronous message invocation can be expressed in sequence diagrams. | True

20. Which of the following is a limitation of component architecture? | Adaption of components

20.Activity diagrams are used to support the process view. True

20.Asynchronous message invocation can be expressed in sequence diagrams | True

20.Composite structure diagrams are based on object diagrams.| True.

20.The master-slave architecture is a specialized form of main-subroutine architecture | True

20.The master-slave architecture is a specialized form of main-subroutine architecture|True

20.Which is the statement you can describe about PAC architecture syle? | PAC�s Agents are loose coupling and high independent.

20.Which of the following is Open-Close principle? | open to extension, close to modification

20.Which of the following is limitation of message-driven architecture| Capacity limit of message queue

20.Which of the following is one limitation of Client/Server architecture? | Server availability and reliability

21 Select the outcome of the software design phase: | SDD

21. Conditional branching can be represented in sequence diagrams. | True

21. Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

21.Component diagrams are based on object diagrams.| True.

21.Conditional branching can be represented in sequence diagram | True

21.Deployment diagrams are used to support the physical view | True

21.In Fat-client type, the client includes which of the following processing| A- Presentation processing, Business Logic Processing

21.In Fat-client type, the server includes which of the following processing | Presentation processing, Business Logic Processing

21.When will you apply the Batch Sequence architecture| Developing a system where each sub-system reads related input files and writes output files.

21.Which of the following is NOT the role of architects? | determine market trends or needs evaluation

21.Which of the following is one of distributed architecture? | Service-Oriented architecture

21.Which of the following is the main motivation of Component-based architecture? | Component reusability

22 Which of the following is not considered as event-driven? | Callback

22. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram. | True

22. Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

22.A UML diagram must provide a complete view of the entire software system.| True.

22.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

22.At software deployment time, the software element are \_\_ | the executable version of the project modules and files

22.Component diagrams are used to support the development view | True

22.Repository architecture design could NOT be object-oriented design | True

22.Repository architecture design could NOT be object-oriented design| True

22.The key point of the interaction oriented software architectures is \_\_\_ Which is the best answer? | In the separation of user interactions from data abstraction and business data processing.

22.Which of the following attributes which could be observable at runtime| Availability, Security, Performance

22.Which of the following is limitation of message-driven architecture? | Capacity limit of message queue

23 Polymorphism implies the following | the same operation might behave differently at run time

23. An interaction overview diagram is based on all low-level interaction diagrams. | True

23.A component is a class or an object.| False.

23.Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True (correct).

23.Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True

23.An interaction overview diagram is based on all low-level interaction diagrams | True

23.The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture style

23.The purpose of the software analysis phase is to produce a software requirement specification | true //

23.The software submodels and their interfaces are described in the logical view | True

23.When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

23.Which of the following is one of advantages of Component-Based architecture| Productivity for the software development and future software development

24 In Client/Server architecture | All of the others(The server,The business,A client can )

24.Asynchronous message invocation can be expressed in sequence diagrams.| True.

24.Concurrency control activity is part of the processview | True

24.Software Architecture Design is based on the software requirement | true

24.The usability of a user interface is enhanced by consistency and integration| The usability of a user interface is enhanced by consistency and integration

24.Which of the following attributes which could be observable at runtime? | Availability, Security, Performance

24.Which of the following is NOT a benefit of Component architecture | Performance

24.Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| D- Blackboard architecture

24.which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems? | Blackboard architecture

25 Select correct statement about inheritance | Class can inheritances more than one interface

25, Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

25. Which of the following is one of distributed architecture? | Service Oriented architecture

25.Conditional branching can be represented in sequence diagrams.| True.

25.In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style? | Client-side proxy

25.Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| True

25.System and network configuration decisions are part of the physical view | True

25.The CRC card method is used to identify the responsibilities of each class | true

25.Which is an advantage of Client- Server Architecture? | Reusability of server components.

25.Which of the following is a limitation of Layered architecture| Lower runtime performance

25.Which of the following is one of advantages of Component-Based architecture? | Productivity for the software development and future software development.

26 Select correct statement | A protocol-based connector can better support interactions between heterogeneous elements

26, The testing of synchronous architecture is more straightforward than asynchronous architecture. |True

26. User Interface Evaluation does NOT focus on which of following features? | Only the tailor-able of the user interface

26.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.| True.

26.Software architecture is concerned only with functional requirements | False

26.The CRC card method in used to identify the responsiblities of each class | True

26.The testing of synchronous architecture is more straightforward than asynchronous architecture.| True

26.User interface Evaluation does NOT focus on which of following features| Only the tailor �able of the user interface

26.Which of the following is not an Open-Close principle�s implication? | Fell free to change software code

26.Which of the following is the advantage of Broker architecture? | Changeability and extensibility

26.Which of the following statement is TRUE? | The usability of a user interface is enhanced by consistency and integration.

27 Select correct statement about inheritance | Class can inheritances more than one interface

27, Two modules in a data flow system can change their order without any constrains. | False

27. Which of the following is a PAC architecture benefit? | All of the others

27.An interaction overview diagram is based on all low-level interaction diagrams.| True.

27.Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem. | various design strategies

27.Prototyping can be used to support UI design | True

27.Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute| Productivity

27.Two modules in a data flow system can change their order without any constrains.| B- False

27.Which of the following are considered as implementation attributes? | Interoperability, maintainability, prortability, fexibility

27.Which of the following attribute related to error tolerance and availability? | Reliability

27.Which of the following is a limitation of Layered architecture? | Lower runtime performance

28 web services are examples of service-oriented architecture | T

28, Multiple event targets can register with same event source. | True

28. State machine diagram is grouped in which of following UML diagram category? | Behavioral Diagrams

28.ADL is a programming language | False

28.Abstraction via inheritance is one effective way to achieve the open-close principle | true

28.Architecture design is about choosing the right single architecture style for a project| F

28.In user interface evaluation step, we should focus on what? | The usability of the interface

28.Multiple event targets can register with same event source.| A- True

28.SAPCO stands for which? | It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

28.Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architeture style, and each component can use a different one, this is an example of heterogeneous architecture

28.Which of the following is a limitation of component architecture| Adaption of components

29 the application domain of process control style includes real-time systems | T

29, Hierarchical architecture is a procedure-oriented design paradigm only. | False

29. Sequence diagram are used to support\_\_\_\_ | The logical view

29.ADL can produce tagret code | True

29.Architect design is about choosing the right single architecture style for a project | false

29.Hierarchical architecture is a procedure-oriented design paradigm only.| A- False

29.In user interface design step. User-centered factor consideration means what? | Designers must take into account the needs, experiences, and capabilities of the system users.

29.The acronym SAPCO is used for which of following purpose| Describing the Satisfactory principles of user interface

29.Which is the reason when you apply component-based architecture, overall reliability will be increased? | You could increase the reliability of each individual component in your own way.

3 The benefit of the broker architecture | All [Server component ,Changeability , Simplicity for ...]

3. Activity diagrams are used to support the process view, | True

3. C is a popular OO programming language. | False

3. CCM is a target technology for component technology. | True

3. COBOL is widely used to implement batch sequential. | True

3. Client-server architecture in general is more scalable than the multi-tier model. | False

3. Different architecture structures have different element and con- nector types. | True

3. Modifiability and expandability are essentially the same quality attribute. | False

3. The purpose of the software design phase is to produce a software requirement specification. | False

3. The testing of synchronous architecture is more straightforward than asynchronous architecture. | True

3. Traffic control agents in a city traffic management system may be designed using PAC. | True

3. Web service is an example of hierarchy architecture design. | True

3. When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development? | PAC Architecture

3.Activity diagrams are used to support the process view | True

3.C is popular OO programming language | False

3.CCM is a target technology for component technology | True

3.CCM is a target technology for component technology.| a. True

3.COBOL is widely used to implement batch sequential | True

3.COBOL is widely used to implement batch sequential.| True.

3.Client-server architecture in general is more scalable than the multi-tier model | False

3.Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain | False

3.Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.| False

3.Different architecture structures have different element and connector types | True

3.Main- subroutine architecture can also be applied in any object-oriented software design | False

3.Main- subroutine architecture can also be applied in any object-oriented software design| B- False

3.Modifiability and expandability are essentially the same quality attribute | False

3.Modifiability and expandability are essentially the same quality attribute.| False

3.Software architecture = software architecture styles.| False.

3.The Yellow Page of web service is an example of repository design.| True.

3.The purpose of software design phase is to produce a software requirement specification | False

3.The testing of synchronous architecture is more straightforward than asynchronous architecture | True

3.Traffic control agents in a city traffic management system may be designed using PAC | True

3.User interface refers to static components and their layout, not dynamically displayed information. | False

3.User interface refers to static components and their layout, not dynamically displayed information.| False

3.Web service is an example of hierarchy architecture design | True

3.Web service is an example of hierarchy architecture design.| True.

3.Which is the following diagram called? | state machine diagram

3.Which of the following is advantage of broker architecture? | Changeability and extensibility

3.Which of the following is advantage of broker architecture| Changeability and extensibility

3.Which of the following statement is TRUE? | Three-tier is the same as MVC architecture.

30 web applications are examples of client-server architecture | T

30. Sequential flow control can be predetermined in pipe and filter. |True

30. Which of the following is a typical style of Hierarchical architecture? | Hierarchical structure, Layered, Master-Slave, Virtual Machine

30.ADL is used only for software architecture specification | False

30.Evaluating the abstraction of software development methodogy, Which is the right order? (�>� is higher) | Service-based > Component-based > Object-oriented > Functional-oriented

30.Sequential flow control can be predetermined in pipe and filter.| A- True

30.Software quality attributes must satisfy functional requirements | false

30.Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design| If the two elements are mapped to a single process, the connector could be mapped to local method invocation

30.Which of the following is a limitation of component architecture? | Adaption of components

31 Which of the following is typical design domain for the MVC architecture | Web server site application

31. Which of the following is TRUE? | Hardware independence does not imply software independence

31.Polymorphism principles mean that�.| An object can have different appearance/behaviors under difference circumstances

31.The acronym SAPCO is used for which of following purpose? | Describing the Easy to use attribute of user interfaces

31.UML diagrams are used for system analysis and design | True

31.What is an architecture design space? | design alternatives that can support functional and non-functional requirement specifications.

31.Which of the following attribute related to hardware independence and installability? | Portability

32 Which kind of class is not used in an analysis class diagram? | Concrete class

32. Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice? | (1): Event (source); (2): Event Listener

32.Availability refers to�| a system�s capability to be available 24/7

32.In SOA architecture, Interoperability means what? | Technically any client or any service can access other services redardless of their Plaform, Technology, Vendors, Language implementations

32.Usecase diagrams are generated in early stages of the SDLC, where areas deployment diagrams are generated in the later stages of the SDLC | True

32.Which is NOT a structure which can be described in a software architecture? | operation structure

32.Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design? | If the two elements are mapped to a single process, the connector could be mapped to local method invocation.

32.Which of the following is not an open-close principles�s implication?| b. Feel free to change software code.

33 Which of the following is NOT buffer-based? | Callback

33. Repository architecture and Blackboard architecture is categorized into which of following architecture style? | Data-Centered architecture style

33.Architecture design is about choosing the right single architecture style for a project| b. False

33.Composite structure diagrams are based on object diagrams | True

33.In Client-Server architecure style, ther are follow types | Thin-Client, Fat-Client

33.Polymorphism principles mean that�. | An object can have different appearance/behaviors under difference circumstances

33.Which of the following is NOT an architecture style in hierarchical architecture| Client-Server architecture

33.Which of the following structures describes the dynamic properties of software architecture? | software runtime structure

34 When do we use pipe& filter architecture? | All of the others

34. The following diagram is a description of which architecture style? (---> control flow) | Blackboard architecture

34.Based on connector�s information carrier, the connectors in software architecture might be classification into \_\_ | variable, environment resource, method, message

34.Component diagrams are based on object diagrams | True

34.Software quality attributes must satisfy functional requirements| b. False

34.Which of the following is the limitation of Repository Architecture Style?| Data store reliability availability is a very important issue

34.Which of the followings is a style of distributed architecture? | Service Oriented architecture

35 Which is a deployable software package that can provide services to its clients? | Component

35.A UML diagram must provide a complete view of the entire software system | True

35.At software development time, the software element are \_\_? | Source code modules or files which have been assigned functional and non-functional attributes.

35.Compared with SOA, the advantage of SBA is which of the following? | Allows stateful service

35.High dependency between data structure of data store and its agency| High dependency between data structure of data store and its agency

35.In MVC, said that it is easy to plug-in new or change interface views mean which of the following? | It allows updating the interface views with new technologies without overhang the rest of the system

35.UML diagrams are used for system analysis and design| a. True

36.A component is a class or an object | False

36.The CRC card method in used to identify the responsiblities of each class| True

36.Which of the following is NOT TRUE about Detailed design step? | We will describe user accessible components only in this step.

36.Which of the following is NOT a buffer- based software architecture| Peer-to-peer connection

36.Which of the following is NOT an architecture style in hierarchical architecture? | Client-Server architecture

36.Which of the following is NOT the benefit of Multi-tier architecture style? | Load balancing

36\_\_\_\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal components and the outside world | Interoperability

37 Which of the following is false for implementing the separation of the user interface from the logic of the software system? | None of the others

37.Asynchronous message invocation can be expressed in sequence diagram | True

37.Polymorphism implies the following: | All of others

37.When you are request to maker a system which can be used be users who work on different sites. It�s required that the system security attribute is high because of its working domain requirement. There are about 100.000 to 500.000 users using the system at the same time. Which architecture will you choose to apply for the system development? | Component-based architecture style

37.Which of the following is NOT a buffer- based software architecture | Peer-to-peer connection

37.Which of the following is a buffer- based software architecture| Publish-Subscribe Messaging(P&S)

37.Which of the following notations is used to support the physical view?| d. Non of the others

38 Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

38. In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline? | Time Sequence Diagram

38.An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram | True

38.In UML 2.0, which diagram derived from use case scenarios| Use-case diagram

38.What of the following characteristic do MVC and PAC both have? | Support fot developing interactive application

38.Which of the following are considered as implementation attributes?| a. Interoperability, maintainability, prortability, fexibility

38.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc. | logical view

39 Which task should not be the first activity of software architects when the software project start? | Collecting project requirements

39. In Non-buffered Event-based architecture, how many partitions a system could be broken into? | 2 partitions

39.Batch-Sequence is one of the architecture styles | true

39.Conditional branching can be represented in sequence diagrams | True

39.Which of the below description is a limitation of MVC architecture sytle? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

39.Which of the following is an Open-Close principle�s implication? | Keep attributes private

39.Which of the following is an Open-Close principle�s implication| Keep attributes private

39.Which of the following notations is used to support the logical view?| d. All of the others

4 Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

4. CORBA is an example of the broker architecture. | True

4. Deployment diagrams are used to support the physical view, | True

4. Each component may have its provided ports and required ports from other components. | True

4. Element and connector attributes are derived from the project requirements. | True

4. Hierarchical architecture is a procedure-oriented design para- digm only. | False

4. Implicit notification is often used in MVC architecture. | True

4. Object-oriented design is a design methodology, | True

4. SAAM relies on use cases to test an architecture design. | False

4. The set of classes in a design is nailed down when the analysis class diagram is finished. | False

4. Two modules in a data flow system can change their order with- out any constraints. | False

4. Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

4.Architecture styles contribute to software quality attributes | true

4.CORBA is an example of the broker architecture | True

4.Component deployment is a good practice in a layered architecture. | True (correct)

4.Component deployment is a good practice in a layered architecture.| A- True

4.Deployment diagrams are used to support the physical view | True

4.Each component may have its provided ports and required ports from other components | True

4.Each component may have its provided ports and required ports from other components.| a. True

4.Element and connector attributes are derived from the project requirements | True

4.Hierarchical architecture is a procedure-oriented design paradigm only | False

4.Hierarchical architecture is a procedure-oriented design paradigm only.| False.

4.Implicit notification is often used in MVC architecture | True

4.Implicit notification is often used in blackboard architecture | True

4.Implicit notification is often used in blackboard architecture.| True.

4.Implicit notification is often used in the MVC architecture | True

4.Object-oriented design is a design methodology | True

4.Product line processes are a way to institutionalize systematic reuse | False

4.Product line processes are a way to institutionalize systematic reuse.| False

4.SAAM relies on use cases to test an architecture design | False

4.SAAM relies on use cases to test an architecture design.| False

4.The MVC model suggests the separation of the user interface from the logic of the software system. | True

4.The MVC models suggest the separation of the user interface from the logic of the software system?| a. True.

4.The outcome of Object Oriented Analysis stage are� | Requirement Specification, Initial logic structure of the system

4.The outcomes of Object Oriented Analysis stage are| Requirement Specification, Initial logic structure of the system

4.The set of classes in a design is nailed down when the analysis class diagram is finished | False

4.Two modules in a data flow system can change their order without any constraints | False

4.Two modules in a data flow system can change their order without any constraints.| False.

4.Which of the below description is a benefit of PAC architecture style? | Complete sepatation of presentation and abstraction

4.Which of the following structures describe the static properties of software architecture?| Software code structure.

40 Virtual machine architecture is a sub-type of \_\_\_\_\_\_\_\_ architecture | Hierarchical

40. Which of the following is the advantage of broker architecture? | Changeability and extensibility

40.A component is NOT \_\_\_. Which is the best choice? | A whole system which could be executed independent.

40.An interaction overview diagram is based on all low-level interaction diagrams | True

40.In UML 2.0, which of the following is true? | sequence diagram describes time sequence of messages pass between objects in timeline.

40.Pipe-and-Filter is one of the architecture styles| True

40.Which of the following is NOT the benefit of multi-tier architecture style| C- Load balancing

41 Reusability is one of the most imporant purpose of component engineering | T

41. Portability refers to \_\_\_\_ | The level of independence of the system on software and hardware platforms.

41.In Client-Server architecture style, there are follow types| Thin-client, Fat-client

41.In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a desscription of a box as follow �John:Doctor�. Which of the following is correct experssion?| a. An object named �John� whose class is �Doctor�

41.Which of the following are benefits of OO design? | All of the above.

42 .NET class library is organized in compoment structure | T

42. The acronym SAPCO is used for which of following purpose? | Describing the East to use attribute of user interface

42.In Thin-client type, the server includes which of the following processing | Data storage processing, Business Logic Processing

42.Sequence diagram both concurrencies and loops can be specified| c. Sequence diagram both concurrencies and loops can be specified

42.Which of the following are features of OO methodology? | Inheritance

43 Java API is built on the component structure | T

43. Which is the benefit of MVC | Multiple views synchronized with same data model

43.C is a popular OO programming language | False

43.In Fat-client type, the server includes which of the following processing| Presentation processing, Business Logic Processing

43.Which of the following diagram is NOT an structural diagram| 43. Which of the following diagram is NOT an structural diagram

44 Which tool can be used to describe an architecture style | "4+1" view model

44. Which of the following statement is TRUE? | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

44.The purpose of the software design phase is to product a software requirement specification| False

44.The set of classes in a design is nailed down when the analysis class diagram is finished | False

44.Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?| Blackboard

45 To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case? | Tradeoff between scalability and performance

45. Which diagram is equivalent to a sequence diagram? | Collaboration diagram

45.The CRC card method is used to identify the responsibilities of each class | True

45.What is a class involved in accomplishing the responsibility of a class called in CRC modeling?| a. Collaboration

45.Which of following structures describe the static properties of software architecture| Software code structure.

46 Concurrency is not supported in batch-sequential architecture | T

46. Which of the following is one of advantages of Component-based architecture? | Productivity for the software development and future software development

46.Sequence diagrams do not describe loops in a message exchange process | False

46.Which of following structures describe the dynamic properties of software architecture| Software runtime structure

47 Peformance of batch-sequential architecture is higher than pipe-filter architecture | F

47. With a good software design. Which is the benefit we will get? | It helps to coordinate development teams to work together orderly.

47.A class is said to be cohesive if it supports as many associated responsibilities as possible | False

47.Which of the following is open-close principle?| b. Open to extension, close to modification

47.Which of the following notations is used to support the physical view| None of the above

48 Batch-sequential is a kind of data-centered architecture | F

48.Abstraction via inheritance is one effective way to achieve the open-closed principle | True

48.Use case diagrams are generated in the early stages of the SDLC. Whereas deloyment diagrams are generated in the later stges of the SDLC.| a. True

48.Which of the following are benefits of OO design| All of the above.

49 Pipe and filter architecture is suitable for embedded system | F

49. The outcome of Object Oriented Analysis are \_\_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

49.A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

49.Software architecture design is based on the software requirement specification| True

49.Which of the following are features of OO methodology| Inheritance

5 Which of the followings is NOT the benefit of hierarchical architecture? | Concurrency

5. Architecture design is about choosing the right single architecture style for a project. | False

5. Component diagrams are used to support the development view, | True

5. Each component must have its provided ports and required ports. | False

5. Hierarchical architecture can also be applied in any object- oriented software design. | True

5. Java can be used to implement a pipe and filter design system. | True

5. Multiple event targets can register with same event source. | True

5. Pipe-and-filter is one of the architecture styles. | True

5. Repository architecture design must also be object-oriented design. | False

5. The CRC card method is used to identify the responsibilities of each class. | True

5. The data in the Model component of the MVC architecture is active. | True

5. There is always an architecture design that can meet all requirements. | False

5. Web service is an example of SOA architecture. | True

5. Which of the following is an Open-Close principle�s implication? | Separate interface and implementation

5.Architecture design is about choosing the right single architecture style for a project | False

5.Component diagrams are used to support the development view | True

5.Design-for-commonality anticipates variation without compromising commonality | False

5.Design-for-commonality anticipates variation without compromising commonality.| False

5.Different architecture structures have different element and connector types.| True.

5.Each component must have its provided ports and required ports | False

5.Each component must have its provided ports and required ports| b. False

5.Hierarchical architecture can also be applied in any object-oriented software design | True

5.Hierarchical architecture can also be applied in any object-oriented software design.| True.

5.In Client-Server architecture style, there are follow types: | Thin-client, Fat-client (correct)

5.Java can be used to implement a pipe and filter design system | True

5.Java can be used to implement a pipe and filter design system.| True.

5.Multiple event targets can register with same event source | True

5.Pipe and filter is one of the architecture styles | True

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5.Repository architecture design must also be object-oriented design.| False.

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5.There is always an architecture design that can meet all requirements | False

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5.Web service is an example of SOA architecture. | True

5.Which of the following if limitation of Non-buffered Event-Based architecture? | Reliability and overhead of indirect invocations

5.Which of the following if limitation of Non-buffered Event-Based architecture| Reliability and overhead of indirect invocations

5.Which of the following is true for implementing the separation of the user interface from the logic of the software system? | All

5.Which of the following notations is used to support the physical view? | none of the others

5.Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

50 Design user interfaces are the task of the software designers and developers have nothing with the software users | F

50.To conform to the open-closed principle the use of global variables should be minimized | True

50.Which are the categories of operations that a class can provide?| b. Constructor, Destructor, Accessor, Mutator

50.Which are the categories of operations that a class can provide| Constructor, Destructor, Accessor, Mutator

51 Static user interfaces have 1D, 2D, 3D, and 4D styles | T

51.Polymorphism implies the following: < knowledge of OOP, need review>| All of the others

51.Which are the categories of operations that a class can provide? | Constructor, Destructor, Accessor, Mutator

51.Which of the following are considered as Runtime attributes| b. Availability, Security, Performance, Usabilty

52 The usability of a user interface is enhanced by consistency and integration | T

52.Object-oriented design is a design methodology| True

52.Polymorphism implies the following: | All of the others

52.Which of the following are considered as Runtime attribute| Availability, Security, Performance, Usability

53 Which is not correct way to use a component | lookup in EJB

53.Which of the following are considered as Runtime attribute? | Availability, Security, Perfomance, Usability

53.Which of the following is not an Open-Closed principle�s implication| Feel free to change software code

53.Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.| a. Logical view

54 How many different way are there to move data in P/F | 3

54.What is a class involved in accomplishing the responsibility of a class called in CRC modeling| Collaborator

54.Which of the following is a feature of object oriented methodology?| d. Inheritance

54.Which of the following is not an Open-Closed principle�s implication? | Feel free to change software code

55 Which of following software system cannot be designed using PAC | Compiler

55.What is a class involved in accomplishing the responsibility of a class called in CRC modeling? | Collaborator

55.Which is NOT a structure which can be described in a software architecture?| c. Operation structure

55.Which of the following diagram is NOT an structural diagram| Sequence diagram

56 Agents in the repository architecture normally do not talk with each other directly, except though data store | T

56.Architecture styles contribute to software quality attributes| a. True

56.In UML 2.0 Which of the following is true| Sequence Diagram both concurrencies and loops can be specified

56.Which of the following diagram is NOT an structural diagram | Sequence diagram

57 Implicit notification is often used in the blackboard architecture | T

57.In UML 2.0 Which of the following is true? | Sequence Diagram both concurencies and loops can be specified

57.In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression| An object named �John� whose class is �Doctor�

57.Which of the following structures descibe the dynamic properties of software architecture?| c. Software runtime structure

58 The rule-based knowledge is installed in the knowledge source component of the blackboard architecture | T

58.Abstraction via inheritance is one effctive way to achieve the open-close principle| True

58.In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �John:Doctor�. Which of the following is correct expression? | An object named �John� whose class is �Doctor�

58.Which of the following is Open-Closed principle| Open to extension, Close to modification

59 The dependency of agents on data store in the repository architecture is high | T

59.Polymorphism implies the following|c. All of the others

59.Which is not a structure which can be described in a software architecture| Dynamic structure

59.Which of the following is Open-Closed principle? | Open to extension, Close to modification

6 1. Which of the following is not a benefit of repository architecture? | Concurrency [Independent agents,Reusable agents,Loose coupling]

6. Agents in the repository architecture normally do not talk with each other directly, except though the data store. | True

6. An event can be either visible or invisible. | True

6. Design produces architecture that specify products and components in the form of Which of the following? | A detail-level design solution

6. Divide-and-conquer is not a suitable methodology for architec- ture design. | False

6. Only directly adjacent layers can invoke each other's methods in a layered architecture. | . False

6. Sequence diagrams do not describe loops in a message exchange process. | False

6. Service-oriented architecture is stateless, while component-based architecture is not. | True

6. Software architecture is a static software structure description. | False

6. The control flow in pipe and filter is explicit. | True

6. The data in the Abstraction component of a PAC agent is passive. | True

6. The provided interface ports may be in synchronous or asyn- chronous modes. | True

6. The software submodules and their interfaces are described in the logical view. | True

6.A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goal. | True

6.A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.| True

6.Agents in the repository architecture normally do not talk with each other directly except though the data store | True

6.Agents in the repository architecture normally do not talk with each other directly, except thought the data store.| True.

6.An event can be either visible or invisible | True

6.Client-server architecture is general is better availability than the multi-tier model | False (correct)

6.Client-server architecture is general is better availability than the multi-tier model| B- False

6.Divide-and-conquer is not a suitable methodology for architecture design | False

6.Element and connector attributes are derived from the project requirements.| True.

6.Only directly adjacent layers can invoke each other�s methods in a layered architecture | False

6.Only directly adjacent layers can invoke each other�s methods in a layered architecture.| False.

6.Package diagram is grouped in which of following UML diagram category? | Structure diagram

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6.The control flow in pipe and filter is explicit | False

6.The control flow in pipe and filter is explicit.| True.

6.The data in the abstraction component of a PAC agent is passive | True

6.The look and feel of a user interface can be defined by using engineering rules | False

6.The look and feel of a user interface can be defined by using engineering rules.| False

6.The provided interface ports may be in synchronous or asynchronous modes | True

6.The provided interface ports may be in synchronous or asynchronous modes.| a. True

6.The software submodules and their interfaces are described in the logical view | True

6.Which of the following are considered as Runtime attributes | availability, security, performance, usability

6.Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

60 Select the disadvantages of direct manipulation | none

60.Which is not a structure which can be described in a software architecture? | Operation structure

60.Which of the following are benefits of object oriented design| e. All of the others

60.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios| Logical view

61.Which of the following are not benefits of pipe and filter| Interactive

61.Which of the following is an architecture design evaluation methodology?| a. SAAM

61.Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc | Logicalview

62.SAAM relies on scenarios to test an architecture design| b. True

62.Which of the following are not benefits of batch sequential| All of the above

63.The below image is a snapshot of which architecture styles following| Event-based architecture

63.Which of the following is NOT a benefit of Component architecture| a. Performance

64.COBOL is widely used to implement batch sequential? | True

64.RMI is an example of the broker architecture| b. True

64.The follow image is an example of| Repository architecture

65.Two modules in a data flow system can change their order without any constraints | False

65.Which of the following is NOT a typical style of distributed architecture?| MVC

65.Which of the following is true about buffered message system| All of the others

66.In SOA architecture, Interperability means what?| c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

66.Java can be used to implement a pipe and filter design system | True

66.The below image is a snapshot of which architecture styles following| Repository architecture

67.Event-based architecture is appropriate for a compiler in an IDE design| a. False.

67.The control flow in pipe and filter is explicit | True

67.Which of the following architecture is suitable for the embedded system software design| Process-Control Architecture

68.The control flow in batch sequence is implicit | True

68.The image below is an example of static style of user interce�slaout? Which which is the correct answer?| a. It�s 1D layout

68.Which of the following is an Open-Close principle�s implication| Separate interface and implementation

69.Based on connector�s information carrier, the connectors in software architecture might be classification into | Variable, Environment resource, Method, Message

69.The abstraction and presentation components in a PAC agent do not talk to each other directly| a. True

69.There are data sharing (shares data) among all subsystems in a data flow systems | False

7 A user interface is a user-centered design product | true

7. A class is said to be cohesive if it supports as many associated responsibilities as possible. | False

7. A component architecture can be derived from use case analysis and business concept diagrams. | True

7. Batch sequential architecture is generally more time efficient than pipe and filter. | False

7. Component deployment is a good practice in a layered architecture. | True

7. Concurrency control activity is part of the process view, | True

7. Coupling in message-driven architecture is even looser than in event-driven architecture. | True

7. Deployment decisions should be reflected in early architecture designs. | False

7. PAC agents are loosely coupled. | True

7. Software quality attributes must satisfy functional requirements. | False

7. The control flow in batch sequential is implicit | True

7. Which of following is one limitation of Client/Server architecture? | Server availability and reliability

7.A class is said to be cohesive if it supports as many associated responsibilities as possible | False

7.A component architecture can be derived from use case analysis and business concept diagram.| a. True.

7.A component architecture can be derived from use case analysis and business concept diagrams | True

7.A customizable user interface is not a good style since it will confuse users. | False

7.A customizable user interface is not a good style since it will confuse users.| False

7.Batch sequential architecture is generally more time efficient than pipe and filter | False

7.Batch sequential architecture is generally more time efficient than pipe and filter.| False

7.Component deployment is a good practice in a layered architecture | True

7.Component deployment is a good practice in a layered architecture.| True.

7.Concurrency control activity is part of the process view | True

7.Coupling in message-driven architecture is even looser than in event-driven architecture | True

7.Deployment decisions should be reflected in early architecture designs | False

7.Divide-and-conquer is not a suitable methodology for architecture design.| False.

7.In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �Human:Player�, which of the following is correct expression? | an object named �Human� whose class is �Player�

7.Loose coupling is used between repository agents | True

7.Loose coupling is used between repository agents.| True.

7.PAC agents are loosely coupled | True

7.Software quality attributes must satify functional requirement | False

7.The Architectural Decision Procedure includes following steps |1.Determine the required quality attributes in requirement analysis 2.Quantify the quality attributes 3.Compute the weighted sum

7.The Architectural Decision Procedure includes following steps| 2-1-3

7.The control flow in batch sequential is implicit | False

7.The control flow in batch sequential is implicit.| True.

7.The following image is an example of one of architecture style below. Which is the best choice? | Multi-tier Architecture Style (correct)

7.The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach.| True

7.The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset-supported development approach | True

7.Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions.

70.Sequential flow control can be predetermined in pipe and filter | True

70.The PAC architecture is a hieracchically structured sofware architecture| a. True

70.Which of the following diagram called| Sequence diagram

71.Polymorphism principles means that| An object can have different appearance/behaviors under different circumstances.

71.Sequential flow control can be predetermined in batch sequence | True

71.There is always onlyone architecture design that can meet all requirements| a. False

72.The usability of a user interface is enhanced by consistency and integration.| a. The usability of a user interface is enhanced by consistency and integration.

72.Which of the following are considered as Business attributes| Time to market, Lifetime, Cost

73.A component architecture can be derived from use case analysis and business concept diagrams| a. True

73.When will you apply the Process-Control architecture| Developing a system which needs to maintain an output data at a stable level

74. The Architectural Decision Procedure includes following steps| 2 => 1 => 3

74.Which of the following is NOT the benefit of Broker architecture style?| a. Easy in testing

75.ATAM is which of the following methods| Architecture Trade-off Analysis Method

75.Blackboard architecture is difficult to debug and test.| True

76.Modifiability and expandability are essentially the same quality attribute.| False

76.Which of the following is one of distributed architecture| Service Oriented architecture

77.Client-server architecture in general is more scalable than the multi-tier model? False

77.Which of the following is a PAC architecture benefit| All of the others

78.Implicit notication is often used in the MVC architecture.| True

78.State machine diagram is grouped in which of following UML diagram category| Behavioral Diagrams

79.Google Map is an example of services in SOA architecture| True

79.Sequence diagram are used to support| The logical view

8 All user interfaces are serving users, including information providers, in certain circumstances | True

8. A registered event target must be ready to handle the event when the event is fired off. | True

8. Abstraction via inheritance is one effective way to achieve the open-closed principle. | True

8. Architecture styles contribute to software quality attributes. | True

8. Core type classes can be recognized as a new component. | True

8. It is beneficial to integrate architecture design with the process of requirements analysis. | True

8. System and network configuration decisions are part of the phys- ical view. | True

8. The Abstraction and Presentation components in a PAC agent do not talk to each other directly. | True

8. There are data sharing (shared data) among all subsystems in a data flow system. | True

8. There is data sharing between all layers in a layered architecture. | False

8. There is tight dependency of agents on the data store in the repos- itory architecture. | True

8. Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

8.A registered event target must be ready to handle the event when the event is fired off | True

8.A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system. | False

8.A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.| False

8.Abstraction via inheritance is one effective way to achieve the open-closed principle | True

8.Architecture styles contribute to software quality attributes | True

8.Core type classes can be recognized as a new component | True

8.Core type classes can be recognized as a new component.| a. True.

8.Deployment decisions should be reflected in early architecture designs.| False.

8.Design produces architectures that specify products and components in the form of which of the following? | A detail-level design solution

8.Design produces architectures that specify products and components in the form of which of the following| A detail-level design solution

8.It is beneficial to integrate architecture design with the process of requirements analysis | True

8.It is beneficial to integrate architecture design with the process of requirements analysis| a. True

8.Sequential flow control can be predetermined in batch sequential. | True (correct)

8.Sequential flow control can be predetermined in batch sequential| A- True

8.System and network configuration decisions are part of the physical view | True

8.The abstraction and presentation components in a PAC agent do not talk to each other directly | True

8.The usability of a user interface is enhanced by consistency and integration | True

8.The usability of a user interface is enhanced by consistency and integration.| True

8.There are data sharing (shared data) among all subsystems in a data flow system | False

8.There are data sharing (shared data) among all subsystems in a data flow system.| False.

8.There is data sharing between all layers in a layered architecture | False

8.There is data sharing between all layers in a layered architecture.| False.

8.There is tight dependency of agents on the data store in the repository architecture | True

8.There is tight dependency of agents on the data store in the repository architecture.| True.

8.Time to market belongs to which of the following quality attributes group? | Business atttributes

8.Which of the following is TRUE? | Hardware independence does not imply software independence

80.The interaction operations in the use case diagrams should be included as part of provided interfaces of components.| a. True

80.Which of the following is a typical style of Hierarchical architecture| Hierarchical structure, Layered, Master-Slave, Virtual Machine

81.Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style| True

81.The following diagram is a description of which architecture style| Blackboard architecture

82.1) is better because of which following| Easy expansion

82.Which of the following is TRUE about heterogeneous architecture?| c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

83.Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following| Allows stateful service

83.Coupling in message-driven architecture is even looser than in event-driven architecture| a. True

84.Batch sequential architecture is general more time efficient then pipe and filter| False

84.In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline| Sequence Diagram

85.In Non-buffered Event-based architecture, how many partitions a system could be broken into| 2 partitions

85.In user interface design step.User-centered factor consideration means what?| d. Designers must take into account the needs, experiences, and capabilities of the system users.

86.Core type classes can be recognized as a new component| True

86.Portability refers to | The level of independence of the system on software and hardware platforms

87.SAPCO stands for which?| a. It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other

87.Which is the benefit of MVC| Multiple views synchronized with same data model

88.One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces | One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

88.Which is the most appropriate architecture style to develop a radar system like below?| PAC

89.In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?| b. Client-side proxy

89.Which diagram is equivalent to a sequence diagram?| State machine diagram

9 Design and implementation of user interfaces must satisfy users' requirements | true

9. A core type component does not depend on any other classes. | True

9. A message receiver is not required to be ready when the mes- sage arrives. | True

9. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner. | False

9. Based on connector�s information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_ | Variable, Environment resource, Method, Message

9. Event-based architecture is a good candidate for interactive sys- tems with graphic user interface. | True

9. In a software architecture, a process, object, service or an instance of software component is \_\_\_ | A software element

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture. | False

9. Sequential flow control can be predetermined in pipe and filter. | True

9. Software architecture = software architecture styles. | False

9. Software architecture is concerned only with functional requirements. | False

9. The "Look and Feel" feature is well supported in the MVC architecture. | True

9. The callback method is typically used in a main-subroutine architecture. | False

9.A core type component does not depend on any other classes | True

9.A core type component does not depend on any other classes.|a. True.

9.A message receiver is not required to be ready when the message arrives | True

9.A part involved in an aggregation relationship should be born and terminate at the same moment as its owner | False

9.Activity diagrams are used to support the process view.| True.

9.Event-based architecture is a good candidate for interactive systems with graphic user interface | True

9.Event-based architecture is a good candidate for interactive systems with graphic user interface.| True

9.Facts are installed in the Blackboard component of the Blackboard architecture? | True(correct)

9.Facts are installed in the Blackboard component of the Blackboard architecture?| A- True

9.Reuse is not an end in itself but a means to an end.| True

9.Reuse is not and end in itself but a means to an end | True

9.Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

9.Rule-based knowledge is installed in the blackboard component of the blackboard architecture.| False.

9.Sequential flow control can be predetermined in pipe and filter | True

9.Sequential flow control can be predetermined in pipe and filter.| True.

9.Software architecture = software architecture styles | False

9.Software architecture is concerned only with functional requirements|False

9.The �Look and feel� feature is well supported in the MVC | True

9.The acronym SAPCO describes | The satisfactory principles of user interfaces

9.The acronym SAPCO describes| c. The satisfactory principles of user interfaces

9.The callback method is typically used in a main-subroutine architecture | False

9.The callback method is typically used in a main-subroutine architecture.| False.

9.Which is the statement you can describe about MVC architecture style? | MVC is now a very popular architecture style.

9.Which of the following is TRUE for implementing the separation of the user interface from the logic of software system? | all

9.Which of the following is TRUE for implementing the separation of the user interface from the logic of software system| The same logic can be accessed by different kinds of user interfaces

90.In user interface evaluation step, we should focus on what?| c. The usability of the interface

90.Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system| The same logic can be accessed by different kinds of user interfaces.

94.Which of the followings are not benefits of batch sequential| All

95.Which of the following is not a benefit of repository architecture| Concurrency

96.Which of the following is a typical design domain of blackboard architecture| AI system

97.Which of the following is not a benefit of hierarchical architecture| Interactive

98.Which of the following is a disadvantage of hierarchical architecture| Incremental

99.Which of the following is one of the benefits of asynchronous architecture| Loose coupling of modules

A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public

A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public

A P2P messaging architecture is composed of \_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_ ,and \_\_\_\_\_\_\_\_. | senders, receivers message queues

A \_\_\_\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well-defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | Component

A \_\_\_\_\_\_\_\_\_\_\_ is a collection of computational and storage devices connected through a communications network. | distributed system

A class is said to be cohesive if the following is true: | it has one clearly defined responsibility

A component in Component diagram represents | Deployed reusable binary

A component is NOT\_. Which is the best choice?|A whole system which could be executed independent

A component may consist of many related classes stored and deployed in the many binary assemblies. | False

A message queue is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture between message senders and message receivers | one-to-one . point-to-point

ATAM is which of the following methods? | Architecture Trade-off Analysis Method

A\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well | Component

A\_\_\_\_\_\_\_\_ is a collection of computational and storage devices connected through a communications network | Distributed system

According to connector active time, we can classify connector into \_\_\_\_\_\_\_\_\_\_\_\_\_ | Programmed connectors Event-driven connectors

Agents in the repository architecture normally do not talk with each other directly, except though the data store | True

All of the others ( a user interface is, All user interface is, Design and implementation of user)

An EJB component is packaged in a \_\_\_\_\_ archive file. | JAR

An event can be either visible or invisible | True

Architecture style heavily depends on requirement analysis. | True

Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_ diagrams. | Sequence diagram

At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

Batch-sequential, mutil-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, pere-to-pear message exchange or message broadcasting are all discribed as: | the topology of the dynamic structure

Blackboard architecture is difficult to debug | true

Both Sequential and Parallel processing are supported by | Pipe and Filter architecture

Both Sequential and Parallel processing are supported by | [C] Pipe and Filter architecture

COBOL is widely used to implement batch sequential | True

CORBA is a good implementation example of\_\_\_ | Broker Architecture

Component deployment is a good practice in a layered architecture | True

Component-based technology is a suitable technology to implement layered architecture. | True

Concurrency is described in | Activity diagram

Coupling in message-driven architecture is even looser than in event-driven architecture | True

Data Flow Diagrams (DFD), and State Transition Diagrams (STD) are widely used in software design | true

Each component must have its provided ports and required ports. | False

Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher )|Component-based > Object-oriented > Functional-oriented > Service-based

Evaluating the scalability of architecture styles, which is the right order of scalability of distributed architecture styles? (">" is better) | Client-Server > Broker > Service-oriented

FPT University's CMS site is an example of repository design | B True

FPT University's CMS site is an example of repository design | True

Facts are installed in the Blackboard component of the blackboard architecture | B True

Facts are installed in the Blackboard component of the blackboard architecture | True

For a large-scale software project, \_\_\_\_\_\_\_\_\_\_ styles are used to combine benefits of multiple styles and to ensure quality and appropriateness. | heterogeneous architecture

Hierarchical architecture is a procedure-oriented design paradigm only | False

Hierarchical architecture is a procedure-oriented design paradigm only | [B] False

How many ways to make data flow in pipe and filter architecture? | 3 ways: push only/ pull only/ push and pull

Implicit notification is often used in blackboard architecture | True

Implicit notification is often used in blackboard architecture | [B] True

In Client-Server architecture style, there are follow types:|Thin-Client, Fat-Client

In Client/Server architecture | All of the others (The server can be a data, The business logic, A client can be a Web client)

In MVC, said that it is easy to plug-in new or change interface views mean which of the following?|It allows updating the interface views with new technologies without overhang the rest of the system.

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | 2 partitions

In Non-buffered Event-based architecture, how many partitions a system could be separated into? | [A] 2 partitions

In SOA architecture, Interoperability means what?|Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

In Thin-Client type, the server includes which of the following processing | Data Storage Processing, Business Logic Processing

In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- position. | composition

In \_\_\_\_\_\_\_\_\_\_\_, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | batch sequential architecture

In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | ":Customer" represents a class named "Customer"

In broker architecture, What is the responsibility of stub? | Mediates between the client and the broker and provides additional transparency between them.

In runtime quality attribute,..... refers to increasing a systems efficiency with regard to response time, throughput, and resource utilization, attributes which usually conflict with each other. | Performance

Java can be used to implement a pipe and filter design system | True

Java can be used to implement a pipe and filter design system | [B] True

Loose coupling is used between repository agents. | True

Many applications designed in the process-control architecture include knowledge-based AI systems, voice and image cognition systems, security systems, business resource management systems. | False

Message-based architecture is appropriate for a compiler in an IDE design | False

Message-based architecture is appropriate for a compiler in an IDE design | [B] False

Multiple event targets can register with same event source | True

Multiple event targets can register with same event source | [B] True

OO paradigm does not imply the following: | smarter artificial intelligence of software systems

OO principles do not include the following | concurrency

Object-oriented software architecture is an extension of component-based architecture. | False

Only directly adjacent layers can invoke each other's method in a layered architecture. | False

Only directly adjacent layers can invoke each other's method in a layered architecture. | [A] False

Open-Close principle requires that a system should be open to extension but close to modification. This implies the following: | new functions should not be achieved by modifying the existing code

Perform trade-off analysis on quality attributes and other non-functional requirements before design phase. | true

Polymorphism implies the following | the same operation might behave differently at runtime

Public interface of a class consists of the following: | public attributes and public operations

QN=1 (10168)Choose the correct statement. | Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world.

QN=10 (10211)Based on connector's synchronization mode, the connectors could be classified into which categories below? |Blocking connector and non-blocking connector.

QN=11 (10212)At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

QN=12 (10273)Which is the best answer for the meaning of the description of the class diagram below when you read it? | A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor.

QN=13 (10264)Which is the following diagram called? | Sequence diagram (Note:From user)

QN=14 (10243)Which of the following notations is used to support the physical view? | None of the others

QN=15 (10248)State machine diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

QN=16 (10261)Which is the following diagram called? | Timing diagram (From "ad RM scheduling")

QN=17 (10302)Which of the following is NOT an Open-Close principle's implication? | Feel free to change software code.

QN=18 (10306)The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ | Requirement Specification, Initial logic structure of the system

QN=19 (10300)Which of the following is an Open-Close principle's implication? | Keep attributes private

QN=2 (10157)Which of the following are considered as Business attributes? |Time to market, Lifetime, Cost

QN=20 (10290)Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

QN=21 (10281)In UML 2.0, Which of the following is TRUE? | Sequence Diagram describes time sequence of messages passed between objects in timeline.

QN=22 (10335)When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

QN=23 (10360)Which of the following is the INCORRECT statement about active filter? | It lets connected pipes to push data in and pull data out.

QN=24 (10328)Which of the following statement is TRUE? | One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

QN=25 (10363)Which of the following is the INCORRECT statement about passive filter? | It works with a passive pipe which provides read/write mechanisms for pulling and pushing.

QN=26 (10357)Which of the following is a CORRECT statement? | Filters can run in separate threads of the same process.

QN=27 (10396)The following image is an example of which architecture style? | Repository architecture style and (?) is a Data Repository

QN=28 (10392)In the Repository architecture, Said that the client control the logic flow means what? | The software component agents control the computation, request and update data on repository actively.

QN=29 (10380)\_\_\_ are installed in the Blackboard component of the blackboard architecture | Facts

QN=3 (10153)Portability belongs to which of the following quality attributes group? | Implementation attributes

QN=30 (10400)Data store reliability and availability are limitations of which architecture style below? | Repository architecture

QN=31 (10374)Which of the following is the benefit of Blackboard Architecture? | Concurrency

QN=32 (10429)In DFD, the follow image is a representation of which flow? | Transaction flow

QN=33 (10409)Which of the following is NOT the limitation of layered architecture? | Incremental software development based on increasing levels of abstraction.

QN=34 (10437)With an application that has clean divisions between core services, critical services, user interface services�. Which architecture style will you apply? | Layered architecture

QN=35 (10441)A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank? | A virtual abstraction

QN=36 (10415)Which of the following is the limitation of virtual machine architecture? | Overhead due to the new layer

QN=37 (10450)The limitation of message-driven architecture over event-driven architecture is which of the following? | Capacity of message queue.

QN=38 (10475)Which architecture style supports scalability and reliability better? | Buffered message-based architecture (2)

QN=39 (10463)When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.Among the styles below, which is the architecture style you will choose to apply into your system architecture? | Buffered Message-based Architecture style

QN=4 (10156)Architecture Styles contribute to which of the following? | Software Quality Attributes

QN=40 (10449)Which of the following is the limitation of message-driven architecture? | Capacity limit of message queue.

QN=41 (10490)Which of the following is NOT a benefit of the MVC architecture? | Supports multiple independent agents

QN=42 (10484)The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice? | 3 major partitions - Data module, Control module, Presentation Module

QN=43 (10528)When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose? | PAC architecture

QN=44 (10503)What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

QN=45 (10492)Which of the followings is a typical design domain of the MVC architecture? | Web server site application

QN=46 (10494)Which of the following are PAC architecture's benefits? | All of the others

QN=47 (10569)In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers? | Broker

QN=48 (10540)Which of the followings is a style of distributed architecture? | Service Oriented architecture

QN=49 (10562)Which of the following is the most important quality attribute of Broker architecture style? | Better decoupling between clients and servers

QN=5 (10171)Usability belongs to which of the following quality attributes group? | Runtime attributes

QN=50 (10533)Which of the followings is NOT the benefit of distributed architecture? | Testability

QN=51 (10541)The image below describes a distributed architecture style. Choose which the suitable style is? | SOA

QN=52 (10578)Which is the reason of the increase of overall system reliability when you apply component-based architecture? | The reliability of each individual component enhances the reliability of the whole system via reuse.

QN=53 (10570)Which of the following description is TRUE? | A component is stored in a binary format, executable and deployable.

QN=54 (10585)Which of the following is a benefit of component-based architecture? | Independency and flexible connectivity of components

QN=55 (10602)Which of the following attribute relates to time and space? | Efficiency

QN=56 (10600)SAAM is which of the following methods? | Software Architecture Analysis Method

QN=57 (10605)Which of the following attribute relates to user interfaces' learning ability? | Usability

QN=58 (10628)In User Interface design step, Separation factor consideration means what? | Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations.

QN=59 (10624)In User Interface design step, Intuitive factor consideration means what? | The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

QN=6 (10162)Usability refers to \_\_\_\_ | The level of "satisfaction" from a human perspective in using the system.

QN=60 (10645)Design produces architectures that specify products and components in the form of which of the following? | An abstract-level design solution

QN=7 (10218)In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ | A software element

QN=8 (10200)In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

QN=9 (10237)According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?| Variable

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | False

Rule-based knowledge is installed in the blackboard component of the blackboard architecture | [B] False

Select approaches to evaluate an architecture design | All of the others (Active Reviews for Intermediate Designs, Software Architecture Analysis Method, Architecture Trade-off Analysis Method)

Select correct statement | A protocol-based connector can better support interactions between hetrogeneous elements

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

Select correct statement | Concurrency is not supported in batch sequential architecture

Select correct statement | None of the others (The static and runtime, Architecture designs)

Select correct statement | pipe and filter is generally more time efficient than batch sequential

Select correct statement | A protocol-based connector can better support interactions between hetrogeneous elements

Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

Select correct statement | Concurrency is not supported in batch sequential architecture

Select correct statement | None of the others (The static and runtime, Architecture designs)

Select correct statement | pipe and filter is generally more time efficient than batch sequential

Select correct statement about inheritance | Class can inheritances more than one interface

Select correct statement about inheritance | Class can inheritances more than one interface

Select correct statement(s) | All of the others (Reusability is one of, NET class library, Java API is built)

Select correct statement(s) | All of the others (Reusability is one of, NET class library, Java API is built)

Select correct statement(s): Statement 1: Good software architecture designs. Statement 2: Good software architecture designs | Statement 1 is correct ("divide-and-conquer")

Select design pattern which relate to data repository architectureChoose one answer. | All of the others ( Layered multi-tier MVC )

Select incorrect statement | Agents in the repository

Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select incorrect statement | JDBC is XML based

Select incorrect statement | design user interfaces are the task of the software designers and developers

Select incorrect statement | Agents in the repository

Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

Select incorrect statement | JDBC is XML based

Select incorrect statement | design user interfaces are the task of the software designers and developers

Select incorrect statement about module in interaction-oriented software architecture | The data repository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data initialization and system configuration actions.

Select major style categories of interaction-oriented architectures: | PAC (Presentation-Abstraction-Control) , MVC (Model-View-Controller)

Select partition in blackboard architecture | Controller , Blackboard , Knowledge-source

Select partition in blackboard architecture | Blackboard, Knowledge-source

Select software element in runtime dynamic structure | Sessions or transactions

Select the 1 | SDD is a programming language , Software architecture is concerned only with functional requirements.

Select the advantages of broker architecture | All of the others (Simplicity for clients, Changeability and extensibility, Server component implementation)

Select the applicable domains of repository architectureChoose one answer. | None of the others

Select the benefit of nonbuffered event-based implicit invocation architecture | All of the others (Reusability of components, Framework availability, Independency and flexible connectivity)

Select the correct order from upper layer to lower layer of SOAP protocol, an example of layer architecture | SOAP XML HTML TCP/IP

Select the correct order of steps in SAAM analysis : | 1-3-2 (1- Define a collection, 2- Perform an analysis, 3- Perform an evaluation)

Select the correct statement about pipe/filter architecture | There are two types of filters: active and passive.

Select the correct statement about pipe/filter architecture Choose one answer | There are two types of filters: active and passive.

Select the diagram is not used to support the logical view | None of the others

Select the different between PAC and MVC | All of the others ( In PAC, the system is decomposed, PAC support of multitasking and multiviewing, PAC was developed from MVC to support)

Select the different between component-oriented design and object-oriented design: | All of the others ( Component-oriented design increases reliability, A component-oriented design represents, Component-oriented design reduces time in market)

Select the disadvantage of virtual machine architecture | Slow execution of the interpreter due to the interpreter nature

Select the disadvantages of direct mainpulation | None of the others

Select the features of OO methodology? | Inheritance

Select the incorrect mapping between components in PAC and components in MVC | Control module of PAC - Control module of MVC

Select the incorrect mapping between components in PAC and components in MVC | Control module of PAC - Control module of MVC

Select the incorrect statement | A P2P messaging architecture includes: publisher, subcribers and message topic

Select the incorrect statement | P2P and Publisher-Subcriber architecture is two type of buffered asynchronous communication architecture.

Select the incorrect statement | Publish-subscribe messaging architecture uses message queue as a buffer.

Select the incorrect statement | P2P and Publisher-Subcriber architecture is two type of buffered asynchronous communication architecture.

Select the incorrect statement Choose one answer. | Publish-subscribe messaging architecture uses message queue as a buffer.

Select the other name of implicit asynchronous communication software ArchitectureChoose one answer. | Observer pattern

Select the partition of nonbuffered event-based implicit invocation architecture | All of the others (message service providers, message producers, message consumers )

Select the partition of nonbuffered event-based implicit invocation architecture | Event listeners, Event sources

Select the type of data-flow architectures that is suitable for the embedded system | None of the others ( Data repository , Blackboard , Pipe and filter )

Select types of data-centered software architecture | Blackboard , Repository

Service-oriented architectures are widely used in B2B enterprise business applications. | True

Software architecture design involves many software design methodologies and architecture styles. | True

The Architecture Decision Procedure includes following steps, Which is the correct order of these steps? | (2)Determine the required quality attributes in requirement analysis => (1)Quantity the quality attributes =>(3) Compute the weighted sum

The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

The \_\_\_\_\_\_\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other. | Data flow

The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers

The advantage of multi-tier over the two-tier architecture is the enhancement of reusability and scalability by adding the middle tier.Any business-related changes are made only to the front-tier. | False

The advantage of the main-subroutine architecture are | Object Orientation, Top-down refinement design

The application domain of the layered architecture is | All of the others ( Any system that can be divided, Applications that have a number of classes, Applications that have clean divisions)

The below image is a snapshot of which architecture styles following? | Event-based architecture

The benefit of the broker architecture | all of the others

The control flow in batch sequential is implicit | True

The control flow in batch sequential is implicit | [A] True

The control flow in pipe and filter is explicit | True

The control flow in pipe and filter is explicit | [B] True

The data store in the blackboard architecture option is active, and its clients are passive. | True

The data store in the repository architecture is \_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive / active

The disadvantages of VM are | Additional overhead due to the new layer

The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_component of a blackboard system | Blackboard

The following diagram is a description of which architecture style? | [D] Repository Architecture

The following diagram is a description of which architecture style?(---> control flow ) | Repository Architecture

The following image is an example of which architecture? | Batch Sequence Architecture

The following image is an example of which architecture? | [B] Batch Sequence Architecture

The main benifit of component-based architecture is \_\_\_\_\_\_\_\_\_\_ | Reusability

The master-slave architecture is a specialized form of main-subroutine architecture | True

The master-slave architecture is a specialized form of main-subroutine architecture | [A] True

The multiplicity is described in\_\_\_\_\_\_\_ | composite diagram

The nonbuffered event-based implicit invocation architecture breaks the software system into two partition \_\_\_\_\_ and. | event sources/ event listeners

The provided interface ports may be in synchronous or asynchronous modes. | True

The publish-subscribe messaging architecture is a \_\_\_\_\_\_\_\_ architecture where publisher clients send messages to a message topic that acts like a bulletin board. | hub-like

The rule-based knowledge is installed in the \_\_\_\_\_\_\_\_\_\_\_ component of the blackboard architecture. | Knowledge source

The stakeholders of Development view can be | Software project manager c. Programmers

The stakeholders of physical view are | System Admin

The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as | The topology of the static structure

The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

The testing of synchronous architecture is more straightforward than asynchronous architecture | True

The testing of synchronous architecture is more straightforward than asynchronous architecture | [A] True

The yellow page of web service is an example of repository design | True

The yellow page of web service is an example of repository design | [A] True

The\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other | Data flow

The\_\_\_\_\_\_\_ is avariant of the main-subroutine architecture style that supports fault tolerance and system reliability | Master-slave architecture

The\_\_\_\_\_\_\_ software architecture style views the entire software system as a series of transformations on successive sets of data | data flow

There are data sharing (shared data) among all subsystems in a data flow system | False

There are data sharing (shared data) among all subsystems in a data flow system | [B] False

There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ | blackboard, repository

Tight coupling is more appropriate than loose coupling in the following application scenario: | database application

To achieve loose coupling, which of the following can be done: | reduce cross-dependency among classes

To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade off in this case? | Trade off between scalability and performance

Two modules in a data flow system can change their order without any constraints | False

Two modules in a data flow system can change their order without any constraints | [A] False

Typical OO languages include the following: | All of the others (C++, Java, C#)

Virtual machine architecture is a sub-type of\_\_\_\_\_\_ architecture. | Hierachical

Virtual machine architecture is used for the software system where reliability is critical. | False

What of the following characteristic do MVC and PAC both have?|Support for developing interactive application

What of the following statement about the characteristic in Service-oriented and Broker are CORRECT? | Both are hard to test and debug

When do we use pipe& filter architecture? | All of the others (Applicable whenever the data format, Applicable whenever system, Suitable for producer)

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | A client's request or a response to client must go through potentially several layers.

When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slow? | [B] A client's request or a response to client must go through potentially several layers.

Which UML diagrams are often used to support development view? | Package diagrams d. Component diagrams

Which UML diagrams are often used to support development view? | Component diagrams, Package diagrams

Which are the benefits of nonbuffered event-based implicit invocation architecture | All of the others

Which are the different between component-oriented design and object-oriented design? | All of the otherr

Which diagrams are used in logical view? | All of the others

Which following software system cannot be designed using PAC? | Compiler

Which is NOT UML behavior description diagram? | Component diagrams

Which is NOT a data type of variable in process control system ? | Output variable

Which is NOT a implementation quality attribute? | Security

Which is NOT a style of data-centered architectures? | All of the others (Batch sequential, Pipe and filter, Process Control)

Which is NOT a style of data-centered architectures?Choose one answer. | All of the others (Process Control,Pipe and filter, Batch sequential )

Which is NOT a type of software architecture? | None of the others

Which is NOT style of hierarchial architecture? | event-based

Which is NOT the benefit of MVC architecture? | The division between the View and the Controller is clear.

Which is NOT the way to make the data flow in Pipe and Filter architecture? | Leave data in a center repository

Which is NOT the way to make the data flow in Pipe and Filter architecture? | [C] Leave data in a center repository

Which is a deployable software package that can provide services to its clients? | Component

Which is dynamic diagram? | Use-case diagram

Which is not component in interaction-oriented software architecture | Data repository

Which is not correct way to use a component? | lookup in EJB

Which is static diagram? | All of the others

Which is the correct order of these steps? | 2 => 1 => 3

Which is the input of the software design phase? | SRS

Which is the most suitable diagram to describe the lifecycle of objects? | Object diagram

Which is the purpose of Main-Subroutine Architecture? | To reuse the subroutines.

Which is the purpose of Main-Subroutine Architecture? | [C] To reuse the subroutines.

Which is the reason when you apply component-based architecture, overall system reliability will be increased?|You could increase the reliability of each individual component in your own way

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | Forward reasoning

Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | [D] Forward reasoning

Which is the statement you can describe about PAC architecture style? | PAC's Agents are loose coupling and high independent

Which kind of UML diagram can be expressed asynchronous message invocation | Sequence diagram

Which kind of class is not used in an analysis class diagram? | Concrete class

Which model is the most commonly distributed system architectures? | Client-server model

Which module in MVC deals with everything graphical? | View

Which modules in MVC architecture can be combined for a simple GUI application? | View and Controller

Which of data flow architecture is commonly applied in embedded software system? | Process Control Architecture

Which of the below description is a benefit of PAC architecture style? | Complete separation of presentation and abstraction

Which of the below description is a limitation of MVC architecture style?|Does not fit well agent-oriented applications such as interactive mobile and robotics applications

Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

Which of the following architecture is suitable for the embedded system software design? | [C] Process-Control Architecture

Which of the following are NOT considered as Business attributes? | Availability: a system's capacity to be available 24/7

Which of the following are benefits of Non-buffered Event-based architecture? | Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are benefits of Non-buffered Event-based architecture? | [D] Framework availability, Reusability of components, Possibility of parallel execution

Which of the following are nor benefits of pipe and filter? | Interactive

Which of the following are not benefits of batch sequential? | All of the others

Which of the following are not benefits of batch sequential? | [B] All of the others

Which of the following are not benefits of pipe and filter? | Interactive

Which of the following are not benefits of pipe and filter? | [D] Interactive

Which of the following attribute related to hardware independence and installability?|Portability

Which of the following attribute related to time and space? | Efficiency

Which of the following attributes are considered as business attributes? | None of the others

Which of the following attributributes? | None of the others

Which of the following is NOT a benefit of the MVC architecture? | Supports mutiple independence agents

Which of the following is NOT a typical style of distributed architecture? | Hierarchical structure architecture

Which of the following is NOT benefit of pipe & filter? | Performance

Which of the following is NOT buffer-based? | Callback

Which of the following is NOT limitations of pipe & filter? | It supports only sequential execution.

Which of the following is NOT the benefit of Multi-tier architecture style?|Load balancing

Which of the following is NOT the benefit of hierarchical architecture? | concurrency

Which of the following is NOT the benefit of repository architecture? | Loose coupling

Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

Which of the following is NOT the typical design domain of the asynchronous architecture | Hierarchical structure

Which of the following is NOT the typical design domain of the asynchronous architecture | Hierarchical structure

Which of the following is TRUE about heterogeneous architecture?|If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

Which of the following is TRUE? | Hardware idependence does not imply software independence

Which of the following is a typical design domain of blackboard architecture? | Al system

Which of the following is a typical design domain of blackboard architecture? | [B] Al system

Which of the following is a typical style of distributed architecture? | Client-server

Which of the following is a typical style of distributed architecture? | SOA N-Tiers Client-server Broker

Which of the following is a typical style of distributed architecture? | SOA | N-Tiers | Client-server | Broker

Which of the following is an architecture design evaluation methodology? | SAAM

Which of the following is buffer-based software architecture? | Publish-Subscribe Messaging (P&S)

Which of the following is buffer-based software architecture? | [C] Publish-Subscribe Messaging (P&S)

Which of the following is false for implementing the separation of the user interface from the logic of the softeware system? | None of the others (Increase reusability, The business logic and the user interface, Ease maintainability)

Which of the following is false for implementing the separation of the user interface from the logic of the softeware system? | None of the others (Increase reusability, The business logic and the user interface, Ease maintainability)

Which of the following is not a benefit of component architecture? | Concurrency

Which of the following is not considered as event-driven? | callback

Which of the following is not considered as event-driven? | callback

Which of the following is one of the benefits of asynchronous architecture? | Loose coupling of modules

Which of the following is one of the benefits of asynchronous architecture? | [B] Loose coupling of modules

Which of the following is the correct statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | Blackboard Architecture

Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems? (Choose the best one) | [D] Blackboard Architecture

Which of the following is the limitation of Repository Architecture Style? | High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | Overhead cost of moving data on network if data is distributed..

Which of the following is the limitation of Repository Architecture Style? | [A] High dependency between data structure of data store and its agents.

Which of the following is the limitation of Repository Architecture Style? | [A] Overhead cost of moving data on network if data is distributed..

Which of the following is true?

Which of the following is true? | All of the others (Web service are example, The application domain, Web applications)

Which of the following is typical design domain for the MVC architecture? | Web client site application

Which of the following is used to describe the life-cycle of an object? | state machine diagram

Which of the following keywords in the C# language is not an example of its support of encapsulation? Choose one answer. | partial

Which of the following notations is not used to support the logical view? | Deployment diagram

Which of the following statement is TRUE about MVC-I | The Controller-View module registers with the Model module

Which of the following statement is TRUE? | Three-tier is the same as MVC architecture

Which of the following statement is a correct description about the job of an architecture designer? | Exhaust all possible solutions, pick up the best one

Which of the followings are the key components of an architectural style? | All of the others

Which of the followings is NOT built with hierarchy architecture? | N-Tiers architecture

Which of the followings is a style of distributed architecture?|Service Oriented architecture

Which of the followings is a typical design domain of the blackboard architecture? | AI system

Which of the most appropriate architecture style to develop a radar system like below? | PAC

Which of the statement you can describe about MVC architecture styles? | MVC is now a very popular archiecture style

Which style of architecture are often applied in traditional programming? | main-subroutine

Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | Master-slave

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which style of hierarchical architecture are often applied in traditional programming? | Main-subroutine

Which task should not be the first activity of software architects when the software project start? | Proposing one architecture for software design

Which task should not be the first activity of software architecture | Collecting project requirment

Which tool can be used to describe an architecture style? | "4+1" view model

Who is NOT stakeholders of logical view | System Admin

Who is responsible for proposing a concrete architecture that best supports the detailed design and implementation of a specific project? | Software architect

You will apply the batch sequential architecture when? | Developing a system where intermediate file is a sequential access file.

You will apply the batch sequential architecture when? | [A] Developing a system where intermediate file is a sequential access file.

\_\_\_\_\_\_ is a deployable software package that can provide services to its clients. | Component

\_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

\_\_\_\_\_\_\_ refers to the universal accessibility and the ability to exchange data with internal component and the outside world. | Interoperability

\_\_\_\_\_\_\_\_\_ is an example of SOA architecture. | Web service

\_\_\_\_\_\_\_is the most commonly distributed system architecture | Client-server model

a.Client-server

a.Supports multiple independent agents

b.Hierarchical structure

b.Scalability

c.Broker

c.Supports multiple views

connected through a communications network. | distributed system

d.Loose-coupling of modules

d.SOA

the following image is an example of one of architecture style below. Which is the best choice?|Multi-tier architecture style

the key point of the interaction oriented software architectures is\_\_\_Which is the best answer?|in the separation of user interactions from data abstraction and business data processing

the multiplicity is describe in | class diagram

which is an advantage of client-server architecture?|reusability of server components

which of the following attribite related to error tolerance and availability?|reliability

which of the following is not a benefit of component architecture|performance

which of the following is the advantage of broker architecture|changeability and extensibility

which of the following is the main motivation of component-based architecture?|component security

::U01-Q048::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

::U01-Q049::Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as the topology of the \_\_\_\_\_\_\_\_\_\_ structure | dynamic

::U01-Q050:: \_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

::U01-Q051::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | refinement of abstractions.

::U01-Q052::\_\_\_\_\_\_\_\_\_\_ is the most traditional process for designing software architectures. | Waterfall

::U01-Q053::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

::U01-Q054::Which kind of UML diagram is a snapshot of class diagram at runtime ? | Object diagram

::U01-Q055::Which is static diagram? | All of the others

::U01-Q056::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

::U01-Q057::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- | composition

::U01-Q058:: The open-closed principle is: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_. | extension/modification

::U01-Q059::Select the features of OO methodology? | Inheritance

::U02-Q001::Select the correct statement about pipe/filter architecture | There are two types of filters: active and passive.

::U02-Q002::The \_\_\_\_\_\_\_\_\_\_\_\_ software architecture style views the entire software system as | Data flow

::U02-Q003::Which is NOT a style of data-centered architectures? | All of the others

::U02-Q004::Select the type of data-flow architectures that is suitable for the embedded system | None of the others

::U02-Q005::Select the applicable domains of repository architecture | None of the others

::U02-Q006::Which is NOT a benefits of pipe and filter architecture | Overhead of data transformation among filters

::U02-Q007::How many ways to make data flow in pipe and filter architecture? | 3 ways: push only/ pull only/ push and pull

::U02-Q008::In \_\_\_\_\_\_\_\_\_\_\_, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | batch sequential architecture

::U02-Q009::One of benefit of data repository system is each subsystem can be a stand-alone program working on input data and producing output data. {F}

::U02-Q010::There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

::U02-Q011::The data store in the repository architecture is \_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive/active

::U02-Q012::The data store in the blackboard architecture option is active, and its clients are passive. {T}

::U02-Q013::Many applications designed in the process-control architecture include knowledge-based AI systems, voice and image recognition systems, security systems, business resource management systems. {T}

::U02-Q014::Select design pattern which relate to data repository architecture | All of the others

::U02-Q015::Select partition in blackboard architecture

::U02-Q016::Which is NOT style of hierarchial architecture? | event-based

::U02-Q017::Which style of architecture are often applied in traditional programming? | main-subroutine

::U02-Q018::Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability? | master-slave

::U02-Q019::Virtual machine architecture is used for the software system where reliability is critical.{F}

::U02-Q020::Select the correct order from upper layer to lower layer of SOAP protocol, an example of layerer architecture | SOAP XML HTML TCP/IP

::U02-Q021::Component-based technology is a suitable technology to implement layered architecture. {T}

::U02-Q022::Select the disadvantage of virtual machine architecture | Slow execution of the interpreter due to the interpreter nature

::U02-Q023::Select the other name of implicit asynchronous communication software | Observer pattern

::U02-Q024::A message queue is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture between message senders and message receivers

::U02-Q025::Select the partition of nonbuffered event-based implicit invocation architecture

::U02-Q026::Which are the benefits of nonbuffered event-based implicit invocation architecture | All of the others

::U02-Q027::In nonbuffered event-based implicit invocation architecture, there is higher dependency between event sources and their listeners than in message queue-based or message topic-based implicit invocation.{T}

::U02-Q028::Select the partition of nonbuffered event-based implicit invocation architecture | All of the others

::U02-Q029::A P2P messaging architecture is composed of \_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_ , and \_\_\_\_\_\_\_\_.

::U02-Q030::The publish-subscribe messaging architecture is a \_\_\_\_\_\_\_\_ architecture where publisher clients send messages to a message topic that acts like a | hub-like

::U01-Q001::The outcome of the software design phase is | SDD

::U01-Q002::The following is a sample outline of SDD based on IEEE 1016 | Attributes

::U01-Q003::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as | The topology of the static structure

::U01-Q004::Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as | The topology of the dynamic structure

::U01-Q005::Which of the followings are not the key components of an architectural style? | All of the others

::U01-Q006::Which of the following are considered as Business attributes? | All of the others

::U01-Q007::Which of the following attributes are considered as business attributes? | None of the others

::U01-Q008::Perform trade-off analysis on quality attributes and other non-functional requirements before design phase.{F}

::U01-Q009::Data Flow Diagrams (DFD), and State Transition Diagrams (STD) are widely used in software design.{F}

::U01-Q010::Which of the following notations is not used to support the logical view? | Deployment diagram

::U01-Q011::The stakeholders of physical view are? | System Admin

::U01-Q012::Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_ diagrams. | Sequence diagram

::U01-Q013::A component in Component diagram represents | Deployed reusable binary

::U01-Q014::Which diagrams are used in logical view? | All of the others

::U01-Q015::Who is NOT stakeholder of the logical view ? | System Admin

::U01-Q016::The multiplicity is described in | Class diagram

::U01-Q017::The stakeholders of Development view can be

::U01-Q018::Concurrency is described in | Activity diagram

::U01-Q019::Which UML diagrams are often used to support development view?

::U01-Q020::Typical OO languages include the following: | All of the others

::U01-Q021::A CRC card cooperation process terminates when the following happens | all flow event specification of all use cases and all public operations of classes are examined

::U01-Q022::In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | "Customer:Joe" represents an object named "Joe" whose class is "Customer"

::U01-Q023::Which of the following is true? | in UML Sequence Diagram both branches and loops can be specified

::U01-Q024::Which of the following is used to describe the life-cycle of an object? | state machine diagram

::U01-Q025::Public interface of a class consists of the following: | public attributes and public operations

::U01-Q026::Tight coupling is more appropriate than loose coupling in the following application scenario: | asynchronous call-back

::U01-Q027::A class is said to be cohesive if the following is true: | it has one clearly defined responsibility

::U01-Q028::To achieve loose coupling, which of the following can be done: | reduce cross-dependency among classes

::U01-Q029::Open-Close principle requires that a system should be open to extension but close to modification. This implies the following: | new functions should not be achieved by modifying the existing code

::U01-Q030::OO paradigm does not imply the following: | smarter artificial intelligence of software systems

::WT-Q001::Identify the wrong pair of symbol-visibility scope

::WT-Q002::Which of the following is not valid in the context of Component Diagrams? | initial node, final node

::WT-Q003::Identify which of the following modeling element is not associated with Activity Diagrams | associations

::WT-Q004::What are the two broad categories of diagrams in UML 2.0? | Structural and Behavioral

::WT-Q005::Which one of the following is not one of standard stereotype in Deployment Diagram? | processor

::WT-Q006::Which of the following is not a valid type of message arrow in sequence diagram? | Activation Message

::WT-Q007::Which of the following relationship is not part of package diagram? | Export

::WT-Q008::A class diagram can be used to model following things except | Depicting the interaction between domain entities

::WT-Q009::Identify which of the following modeling element is not associated with Use case Diagrams | Aggregate relationship

::WT-Q010::Which of the following is used to enclose a parameter's multiplicity? | []

::WT-Q011::In the most general sense a component is a modular building block for computer software. | True

::WT-Q012::In the context of object-oriented software engineering a component contains | set of collaborating classes

::WT-Q013::In traditional software engineering modules must serve in which of the following roles? | All of the above

::WT-Q014::Software engineers always need to cerate components from scratch in order to meet customer expectations fully. | False

::WT-Q015::Which of the following is not one of the four principles used to guide component-level design? | Parsimonious Complexity Principle

::WT-Q016::The use of stereotypes can help identify the nature of components at the detailed design level. | True

::WT-Q017::Classes and components that exhibit functional, layer, or communicational cohesion are relatively easy to implement, test, and maintain. | True

::WT-Q018::Software coupling is a sign of poor architectural design and can always be avoided in every system. | False

::WT-Q019::In component design elaboration requires which of the following elements is NOT described in detail? | Algorithms

::WT-Q020::Which of these is a graphical notation for depicting procedural detail? | flowchart

::U05-Q005::Select the incorrect statement | None of the others

::U06-Q005::Select the incorrect statement | The facts or hypotheses are stored in the knowledge source component of a blackboard system.

::U07-Q005::Select the incorrect statement | The callback method is typically used in a main-subroutine architecture.

::U08-Q005::Select the correct statement | All of the others

::U02-Q025::What's the availability of a system that crashes daily and takes 4 hours to restore when it does? | 86%

::U03-Q025::Which kind of UML digram is described in image below? | Activity Diagram

::U04-Q025::Select incorrect statement about relationships between actor in use-case diagram below

::U05-Q025::When a number of use cases have common behavior, this behavior can bemodeled in a single use case that is \_\_\_\_\_\_\_\_\_\_ by the other use cases. | included

::U06-Q025::In UML class diagram, a class is drawn with a rectangle,often divided into \_\_\_\_\_\_\_\_\_\_\_\_\_. | 3 compartments : name compartment,attributes compartment, operations compartment

::U07-Q025::In UML class diagram, a class is drawn with a rectangle,often divided into \_\_\_\_\_\_\_\_\_\_\_\_\_. | 3 compartments : name compartment,attributes compartment, operations compartment

::U08-Q025::Select the correct Java implementation of attribute "number\_of\_invoice" in class diagram | static private int number\_of\_invoices;

::U09-Q025::Select the relationship between "Window" class and "Button" class in class diagram below | Composition

::U10-Q025::Select incorrect declaration based on class diagram below

::U11-Q025::Select the kind of UML digram in image below | Interaction overview diagram

::U12-Q025::Select the architecture type of diagram below | All of the others

::U01-Q017:: \_\_\_\_\_\_\_\_\_ is a critical examination of software code or other artifacts identify and remove problems directly, without resorting to execution. | Software inspection

::U02-Q017::Which is NOT a top-level characteristic of software quality in ISO-9126? | None of the others

::U03-Q017:: Select QA-activities that prevent certain types of faults from being injected into the software. | Defect prevention

::U04-Q017:: Who involve in defect management? | All of the others

::U05-Q017::Select QA activitives that should be carried out before carrying out the regular QA activities. | Pre-QA activities

::U08-Q017::Select the simplest form of testing | Random testing

::U09-Q017::Which is NOT a general problems with input domain partitions? | Too many test cases for each input sub-domain

::U010-Q017::Select static elements in FSM | States and states transition

::U011-Q017::Select the third step in Control Flow Testing | Sensitize the paths or the test cases by deciding the input values.

::U012-Q017::Which kind of testing tests the overall system operations as a whole, typically from a customer�s perspective? | System testing

::U013-Q017::Software inspection deals directly with \_\_\_\_\_\_\_\_\_ instead of with failures | faults

::U014-Q017::Select phases of software development in that defect prevention can be applied. | All of the others

::U015-Q017::Testing shows the \_\_\_\_\_\_\_\_\_\_ of defects,not their \_\_\_\_\_\_\_\_\_\_\_\_\_. | presence/absence

::U016-Q017::Within \_\_\_\_\_\_\_\_\_ techniques, we can focus either on the accident prevention before accidents happen, or focus on damage control or reduction after accidents happen. | failure containment

::U017-Q017::Which QA results are easiest to interpret and can be used directly for defect removal? | Inspection

::U018-Q017:Product characteristics include | General expectations of the target users

::U019-Q017::Select quality assessment model that provides a single estimate of overall product quality | Overall model

::U021-Q017:: The potential for undesirable consequences of defects in the software including schedule delays, cost overruns, and highly defective software products, is usually referred to as \_\_\_\_\_\_\_. | risk

::U01-Q022::In an interaction diagram, boxes on top of the diagram can represent classes, objects, and actors. Which of the following is true? | �Customer:Joe� represents an object named �Joe� whose class is �Customer�

::U01-Q017::Select incorrect statement | Software architecture is a static software structure description

::U02-Q017::Select incorrect statement | Deployment decisions should be reflected in early architecture designs.

::U03-Q017::The \_\_\_\_\_\_\_ view describes installation, configuration, and deployment of the software application. | physical

::U04-Q017::A part involved in an \_\_\_\_\_\_\_\_\_\_\_\_ relationship should be born and terminate at the same moment as its owner. | aggregation

::U05-Q017::Select incorrect statement: | None of the others

::U06-Q017::Select incorrect statement about blackboard architecture style: | Rule-based knowledge is installed in the blackboard component of the blackboard architecture.

::U07-Q017::Select example(s) of virtual machine | All of the others

::U08-Q017::Select components in Point-to-Point Messaging System | Message sender, message receiver, message queue

::U09-Q017::The MVC and PAC architectures are \_\_\_\_\_\_\_\_\_\_\_ software architecture. | interaction-oriented

::U10-Q017::Select incorrect statement about components in broker architecture | Skeleton is client-side proxy which mediates between the client and the broker and provides additional transparency between them.

::U11-Q017::Select correct statement about component-based architecture | A component architecture can be derived from use case analysis and business concept diagrams.

::U12-Q017::Select incorrect statement | Batch sequential architecture is generally more time efficient than pipe and filter.

::U13-Q017::Select correct statement | The MVC model suggests the separation of the user interface from the logic of the software system.

::HN-Q01::The purpose of the software analysis phase is to produce a software requirement specification | True

::HN-Q02::Which of the following are considered as Runtime attributes | Availability, Security, Performance, Usability

::HN-Q03::Choose the incorrect statement. | The architecture design must cover the software's functional only. It shouldn't cover nonfunctional requirements.

::HN-Q04::In an architecture styles, which of the following is the components that describe the advantages and disadvantages of the chosen structure? | Attributes

::HN-Q05::Which of following is NOT a Software architect's task? | Perform needs evaluation and market trends

::HN-Q06::At software deployment time, the software element are \_\_\_\_ | The executable version of the project modules and files

::HN-Q07::At software development time, the software element are \_\_\_\_ | Source code modules or files which have been assigned functional and non-functional attributes.

::HN-Q08::In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one ) | Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

::HN-Q09::According to the classification on synchronization mode of connector, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should be? | Blocking

::HN-Q10::Which software design structure you will use if you want to report software architecture and staff allocation to your manager? | Management Structure

::HN-Q11::Which is the following diagram called? | Package diagram

::HN-Q12::Which of the following is the correct description of composition relationship in a class diagram? | (3)

::HN-Q13::The view, which takes care of the concurrency and synchronization issues between subsystems, is which of the following? | Process View

::HN-Q14::In UML 2.0, Which diagram describes time order of messages passed between objects in timeline? | Sequence Diagram

::HN-Q15::Use-case diagram is grouped in which of following UML diagrams category? | Behavioral Diagrams

::HN-Q16::(1) is better because of which following? [IMG16] | Easy extension

::HN-Q17::Choose the correct statement | Object oriented analysis establishes an object-oriented abstract model of the system to be built.

::HN-Q18::Which of the following is the correct order of Object Oriented design steps? | 1 -> 2 -> 4 -> 3

::HN-Q19::What is CORRECT statement about Polymorphism? | It refers to the ability of an object to behave differently and assume different forms based on its inheritance hierarchy.

::HN-Q20::Three Object Oriented Principles are which of following? | Encapsulation, Inheritance, Polymorphism

::HN-Q21::In Data Flow architecture, the architecture styles are classified as \_\_\_ | Batch Sequential, Pipe & Filter, Process Control

::HN-Q22::In which architecture style, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation. | Batch sequential architecture

::HN-Q23::Let's assume a new order arrives in our enterprise in the form of a message. One requirement may be that the message is encrypted to prevent eavesdroppers from spying on a customer's order. | Pipe and Filter

::HN-Q24::Which is the INCORRECT statement about a filter? | A Filter need to wait for batched data as a whole.

::HN-Q25::The following Java code fragment is a sample code of which architecture style? | Batch Sequential architecture

::HN-Q26::Data Integrity is a benefit of which architecture style below? | Repository architecture

::HN-Q27::Which of the following is NOT CORRECT about Knowledge Source in Blackboard architecture style? | It always contributes an ultimate solution.

::HN-Q28::Which of the following is the limitation of Repository Architecture Style? | Data store reliability and availability is a very important issue.

::HN-Q29::What is the CORRECT statement about virtual repository? | A virtual repository is built up on the top of multiple physical repository

::HN-Q30::Which is the reasoning method that starts with the initial state of data and proceeds towards a goal? | Forward reasoning

::HN-Q31::In 3-layers architecture, which layer the business process should be implemented in? | Processing layer

::HN-Q32::In the master-slave architecture, the slaves may perform \_\_\_\_. (Choose the best one to fill the blank) | All of the others

::HN-Q33::\_\_\_\_\_ separates a programming language or application environment from a execution platform. Which is the best choice to fill into the blank? | A virtual machine

::HN-Q34::With an application that has clean divisions between core services, critical services, user interface services. | Layered architecture

::HN-Q35::Which architecture style is used for the software system where the reliability is critical? | Master-Slaves architecture

::HN-Q36::Which is the architecture style applied in Integrated Development Environment (IDE) tools? | Non-buffered Event-based architecture (1)

::HN-Q37::The diagram given below is the class diagram of the Event-based architecture style. | (1) : Event Source; (2) : Event Listener

::HN-Q38::Buffered Message-based architecture breaks a software system into 3 partitions, which of following partition is correct? | Message producers, Message consumers, Message service providers

::HN-Q39::When you are requested making a system having some processes which must be done concurrently. | Buffered Message-based Architecture style

::HN-Q40::Which is the CORRECT statement for PAC architecture? | PAC is an agent based hierarchical architecture

::HN-Q41::The architecture style representations below are \_\_\_\_. Which is the best choice? | (1) : MVC, (2) : HMVC

::HN-Q42::Which of the below description is a limitation of MVC architecture style? | Does not fit well agent-oriented applications such as interactive mobile and robotics applications

::HN-Q43::What of the following characteristic do MVC and PAC both have? | Support for developing interactive application

::HN-Q44::The following architecture image is the presentation of which following? (Choose the best answer) | MVC Architecture

::HN-Q45::Evaluating the abstraction of software development methodology, Which is the right order? (">" is higher ) | Service-based > Component-based > Object-oriented > Functional-oriented

::HN-Q46::Which of the followings is a style of distributed architecture? | Service Oriented architecture

::HN-Q47::Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecture styles? (">" is better ) | Service-oriented > Broker > Client-Server

::HN-Q48::Which is a disadvantage of Client-Server Architecture? | Lack of heterogeneous infrastructure to deal with the requirement changes.

::HN-Q49::Which of the following is NOT a typical style of distributed architecture? | Repository architecture

::HN-Q50::Which of the following is the CORRECT statement about Component-based architecture? | It divides the problem into sub-problems each associated with component partitions.

::HN-Q51::Which is the CORRECT statement about the following image? | The system consists of 3 components (A), (B) and (C), in which A and C use the services provided by B via "interface" and "interface 2" respectively.

::HN-Q52::Which of the following is a benefit of component-based architecture? | Reusability of components.

::HN-Q53::Which of the following is NOT a benefit of Component architecture | Easy find suitable available components to reuse.

::HN-Q54::Which of the following is TRUE about heterogeneous architecture? | If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

::HN-Q55::Which of the following attribute relates to hardware independence and installability? | Portability

::HN-Q56::The Architectural Decision Procedure includes following steps: | 2 -> 1 -> 3

::HN-Q57::The acronym SAPCO is used for which of following purpose? | Describing the Satisfactory principles of user interfaces

::HN-Q58::Interoperability refers to \_\_\_\_\_\_\_\_\_\_\_ | The universal accessibility and the ability to exchange data with internal components and the outside worl~

::HN-Q59::Which of the following architecture is suitable for the embedded system software design? | Process-Control Architecture

::HN-Q60::When will you apply the Batch Sequence architecture? | Developing a system where each sub-system reads related input files and writes output files.

::U02-Q031::Which of the following is NOT benefit of pipe & filter? | Performance

::U02-Q032::Which of the following is NOT limitations of pipe & filter? | It supports only sequential execution.

::U02-Q033::Which is NOT a data type of variable in process control system ? | Output variable

::U02-Q034::Which of data flow architecture is commonly applied in embedded software system? | Process Control Architecture

::U02-Q035::Select types of data-centered software architecture

::U02-Q036::Which of the followings is NOT the benefit of repository architecture? | Concurrency

::U02-Q037::Which of the followings is a typical design domain of the blackboard architecture? | AI system

::U02-Q0038::The rule-based knowledge is installed in the \_\_\_\_\_\_\_\_\_\_\_ component of the blackboard architecture. | Knowledge source

::U02-Q039::Which of the followings is NOT built with hierarchy architecture? | N-Tiers architecture

::U02-Q040::The disadvantages of VM are | Additional overhead due to the new layer// Simulation for disaster working model //Execution of the interpreter

::U02-Q041::The application domain of the layered architecture is | All of the others

::U02-Q042::The advantage of the main-subroutine architecture are

::U02-Q043::Which of the following is NOT the typical design domain of the asynchronous architecture? | Hierarchical structure

::U02-Q044::The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers

::U02-Q045::Select the incorrect statement | Publish-subscribe messaging architecture uses message queue as a buffer.

::U02-Q046::Select the incorrect statement | A P2P messaging architecture includes: publisher, subcribers and message topic

::DP-001::\_\_\_\_\_ patterns are patterns whose sole purpose is to facilitate the work of creating, initializing, and configuring objects and classes. | Creational

::DP-002:: Which is creational pattern? | Prototype

::DP-003::Select the design pattern that separates object construction from its representation | Builder

::DP-004::\_\_\_\_\_\_\_\_\_ is a class in which only a single instance can exist | Singleton

::DP-006::Which is NOT a part in builder design pattern? | A factory helps us to centralize the creation of classes and types.

::DP-011::\_\_\_\_\_\_\_\_\_ are patterns whose sole purpose is to facilitate the work of algorithmic calculations and communication between classes. | Behavioral patterns

::DP-012::Which is NOT structural design patterns? | Adapter pattern

::DP-013::Which are components of Composite design pattern? | Component, Composite and Leaf

::DP-014::A \_\_\_\_ pattern allows requests to an object to exist as objects | command

::DP-015::The Adapter pattern has three important components: | Target, Adapter ,and Adaptee.

::DP-016::A \_\_\_\_\_\_\_\_\_\_\_\_ pattern is a group of algorithms encapsulated inside classes that are made interchangeable so the algorithm can vary depending on the class used. | strategy

::DP-017::Which is NOT structural design pattern? | Template

::DP-018::A \_\_\_\_\_\_\_\_\_\_ pattern allows grouping of subsystems behind a unified nterface to allow a central access point to these subsystems. | Facade

::DP-019::The \_\_\_\_\_\_\_\_\_\_ pattern is a useful pattern for making two different class types communicate in a similar manner. | Adapter

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class�s structure without changing the actual class. | Visitor

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class's structure without changing the actual class. | Visitor

::U01-Q014::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure | static

::U01-Q015::8. Batch-sequential, multi-threaded, explicit direct invocation, implicit indirect invocation such as message queue or event notification, synchronous or asynchronous communication, peer-to-peer message exchange or message broadcasting are all described as the topology of the \_\_\_\_\_\_\_\_\_\_ structure | dynamic

::U01-Q016:: \_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system. | Cost

::U02-Q014::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | refinement of abstractions.

::U02-Q015::\_\_\_\_\_\_\_\_\_\_ is the most traditional process for designing software architectures. | Waterfall

::U02-Q016::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_. | source code

::U03-Q014::Which kind of UML diagram is a snapshot of class diagram at runtime ? | Object diagram

::U03-Q015::Which is static diagram? | All of the others

::U03-Q016::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. | UML

::U04-Q014::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- | composition

::U04-Q015:: The open-closed principle is: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_. | extension/modification

::U04-Q016::Select the features of OO methodology? | Inheritance

::U05-Q014::A process control system must have the following process control data: | All of the others

::U05-Q015::Process control software architecture belongs to \_\_\_\_\_\_\_\_\_\_\_\_ architecture style. | Data flow

::U05-Q016::There are two types of filters : \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_. | active and passive

::U06-Q014::\_\_\_\_\_\_\_\_\_\_ software architecture is characterized by a centralized data store that is shared by all surrounding software components. | Data-centered

::U06-Q015::There are two categories of data-centered architecture: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | repository and blackboard

::U06-Q016::The rules are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system. | knowledge source

::U07-Q014::Data is passed as parameters to subroutines from callers. The ways to pass on parameter data are: | Pass by reference/Pass by value

::U07-Q015::\_\_\_\_\_\_\_\_\_\_\_ is used for the software system where reliability is critical. This is due to the replication (redundancy) of servers. | Master-slave architecture

::U07-Q016::A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ architecture is built up on an existing system and provides a virtual abstraction, a set of attributes, and operations. | Virtual machine

::U08-Q014::A \_\_\_\_\_\_\_\_ messaging architecture is composed of message queues, senders, and receivers. | Point-to-Point Messaging

::U08-Q015::The \_\_\_\_\_\_\_\_\_\_ architecture is a hub-like architecture where publisher clients send messages to a message topic that acts like a | None of the others

::U08-Q016::A/An \_\_\_\_\_\_\_\_\_\_\_\_ can be specified in two | asynchronous implicit invocation communication

::U09-Q014::In MVC, the \_\_\_\_\_\_\_\_\_ manages the user input requests, controls the sequence of user interactions, selects desired views for output displays, and manages all initialization, instantiations, and registrations of other modules . | Controller

::U09-Q015::The MVC-I is a simple version of MVC architecture where the system is | Controller-View/Model

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in | PAC

::U10-Q014::The \_\_\_\_\_\_\_\_\_\_ is the most commonly distributed system architecture. | Client-server model

::U10-Q015::A \_\_\_\_\_\_\_\_\_\_ is a service that communicates with other services or clients via standard protocols and technologies such as SOAP, XML, and HTTP. | Web service

::U08-Q011:: Which of the following is not considered as event-driven? | Main-sub functions

::U08-Q012::Which of the following is NOT buffer-based? | Callback

::U08-Q013::The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions: \_\_\_\_\_\_\_\_ and . | event sources/event listeners

::U09-Q011::Which of the following is NOT the benefit of the MVC architecture? | Supports multiple independent agents

::U09-Q012::Which of the following is typical design domain for the MVC architecture? | Web server site application

::U09-Q013::Which of following software system cannot be designed using PAC ? | Compiler

::U010-Q011:: In Client/Server architecture | All of the others

::U010-Q012::Select incorrect statement | JDBC is XML based

::U010-Q013::The benefit of the broker architecture | All of the others

::U011-Q011::Which is not correct way to use a component? | #include in C

::U011-Q012::Select correct statement(s) | All of the others

::U011-Q013::A \_\_\_\_\_\_\_\_\_ is a modular (cohesive), deployable (portable), replaceable(plug-and-play), and reusable set of well-defined functionalities that encapsulates its implementation and exports it as a higher-level interface. | component

::U012-Q011::Select correct statement | Pipe and filter is generally more time efficient than batch sequential.

::U012-Q012::Select incorrect statement | Data repository architecture is suitable for artificial intelligent systems and expert systems.

::U012-Q013::Which of the following is true? | All of the others

::U013-Q011::Select correct statement | A user interface is mainly for accepting inputs and displaying outputs.

::U013-Q012::Select incorrect statement | Design user interfaces are the task of the software designers and developers have nothing with the software users.

::U013-Q013::Which of the following is true? | All of the others

::U08-Q016::A/An \_\_\_\_\_\_\_\_\_\_\_\_ can be specified in two different modes: nonbuffered and buffered. | asynchronous implicit invocation communication

::U09-Q015::The MVC-I is a simple version of MVC architecture where the system is simply decomposed into two subsystems: the \_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_. | Controller-View/Model

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in addition to interactive requirements. | PAC

::U10-Q016::The broker architecture have many kind of subcomponents , that includes: | All of the others

::U11-Q014::A \_\_\_\_\_\_\_\_\_\_\_\_ is a deployable software package that can provide services to its clients. | component

::U11-Q015::Why use components? | All of the others

::U11-Q016::\_\_\_\_\_\_\_\_\_ is a higher level of abstract concept than class. A \_\_\_\_\_\_\_\_\_ may consist of many related classes stored and deployed in the same binary assembly. | Component

::U12-Q014::Select incorrect statement | Homogeneous architecture styles are used to combine benefits of multiple styles and to ensure quality and appropriateness.

::U12-Q015::Quality attributes are an essential part of the \_\_\_\_\_\_\_\_\_\_\_ of a system. | nonfunctional requirements

::U12-Q016::Select the correct statements | All of the others

::U13-Q014::Select correct statement | All of the others

::U13-Q015::From the user's viewpoint, the first impression of a software system is its \_\_\_\_\_\_\_\_\_\_\_. | user interface

::U13-Q016::Which of the following is NOT true for implementing the separation of the user interface from the logic of the software system? | Decrease reusability

::U01-Q021::Which is not a typical quality attribute tradeoff pairs? | Tradeoff between usability and reliability

::U02-Q021::Good software architectural designs are based on the recursive application of refinement of abstractions. | True

::U03-Q021::Component diagrams are used in the scenario view. | False

::U04-Q021::Aggregation relationship requires that the parts of an object should have exactly the same life-span as the object. | False

::U05-Q021::The active filter in pipe & filter | Pulls in data and push out the transformed data (pull/push)

::U06-Q021::Explicit notification is often used in the blackboard architecture. | False

::U07-Q021::The callback method is typically used in a main-subroutine architecture. | False

::U08-Q021::Multiple consumers consume a message on a message queue. | False

::U09-Q021::The data in the MVC is active.The data in PAC is passive | True

::U10-Q021::The tier connected to back-end tier in multi-tier architecture is | Enterprise tier

::U11-Q021::Each component must have its provided ports and required ports. | False

::U12-Q021::In a heterogeneous architecture, each component should not have mixed architecture. | False

::U13-Q021::A user interface is mainly for accepting inputs, conducting computations, and displaying outputs. | True

::U01-Q018::Select incorrect statement | The goal of software design is to build a model that meets functional requirements only.

::U02-Q018::Which is NOT an attribute of static structure connectors? | Multiplicity

::U03-Q018::Which view does not belong to 4+1 views model? | Scenario view

::U04-Q018::Parts involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationship do not have to share the same lifespan as the owner. | aggregation

::U05-Q018::Compilers are the typical examples of \_\_\_\_\_\_\_\_\_\_ software architectures style. | data flow

::U06-Q018::The data store in the repository architecture is \_\_\_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_. | passive/active

::U07-Q018::Select correct statement about modules in hierarchical software architecture | A lower-level module provides services to its adjacent upper-level modules.

::U08-Q018::The buffered message-based software architecture breaks the software system into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | three partitions: message producers, message consumers, and message service providers

::U09-Q018::Two major style categories of interaction-oriented architectures are: | Presentation-Abstraction-Control and Model-View-Controller

::U10-Q018::Select the basic form of multi-tier architecture | Client-server architecture

::U11-Q018::Select incorrect statement | None of the others

::U12-Q018::The general idea of \_\_\_\_\_\_\_\_\_ is to evaluate candidate architecture designs using a collection of scenarios. | AAM (Software Architecture Analysis Method)

::U13-Q018::Select correct statement(s) | All of the others

::U01-Q051::\_\_\_\_\_\_\_\_\_\_ refers to the degree to which the system facilitates the establishment of test cases. It usually requires a complete set of documentation accompanied with system design and implementation. | Testability

::U02-Q051:: \_\_\_\_\_\_\_\_\_ refers to the ability to adapt to an increase of user requests volume. It disfavors bottlenecks in system design. | Scalability

::U03-Q051::Based on the connector's \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, we can classify all connectors into two categories: | synchronization mode

::U04-Q051::Based on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a connector may be classified as signature-based or protocol-based. | implementation type

::U05-Q051::For following task, state whether it is relevant for analysis (A) or for design (D) or for both (AD): "Decide a software architecture for the given application" | D

::U06-Q051::For following task, state whether it is relevant for analysis (A) or for design (D) or for both (AD): "Develop Use Case Diagrams" | A

::U07-Q051::The pros of the main-subroutine architecture are | a,c

::U08-Q051::Which of the following is not the benefit of layered architecture? | Runtime performance

::U09-Q051::Which are components of Composite design pattern? | Component, Composite and Leaf

::U10-Q051::Which of the following is NOT the benefits of the MVC architecture? | Supports multiple independent agents

::U11-Q051::The Adapter pattern has three important components: | Target, Adapter ,and Adaptee.

::U12-Q051::Which two parts in a PAC agent can't talk each other directly? | Presentation - Abstraction

::U01-Q027::Which is NOT an implementation attribute? | Performance

::U02-Q027::Select incorrect statement | Waterfall is the better process for designing software architectures.

::U03-Q027::Which is NOT UML behavior description diagrams? | Class diagram

::U04-Q027::Select incorrect statement | Composition relationship is represented by hollow diamond arrow.

::U05-Q027::There are data sharing (shared data) among all sub-systems in a data flow system. | False

::U06-Q027::Which of the followings is NOT the main benefit of repository architecture? | concurrency

::U07-Q027::Which of the followings is NOT the main benefit of hierarchical architecture? | concurrency

::U08-Q027::Which of the following is the main benefit of asynchronous architecture? | Loose coupling of modules

::U09-Q027::Which of the following is NOT the main benefit of the MVC architecture? | Supports multiple independent agents

::U10-Q027::Which of the followings is NOT the main benefit of distributed architecture? | Supports multiple views

::U12-Q027::It is not always possible to evaluate a quality attribute quantitatively. However, we can evaluate it qualitatively and then define metrics to map qualitative evaluation into numbers. | True

::U13-Q027::Design user interfaces are the task of the software designers and developers, have nothing with the software users. | False

::U01-Q031::Which is the input of the software design phase? | SRS

::U01-Q032::\_\_\_\_\_\_\_\_\_\_\_ represents the whole/part relationship between classes. In \_\_\_\_\_\_\_\_\_\_, the parts of a class have the same | Composition

::U01-Q033::In runtime quality attribute, \_\_\_\_\_\_\_\_\_ refers to increasing a systems efficiency with regard to response time, | Performance

::U01-Q034::Which is NOT a implementation quality attribute? | Security

::U01-Q035::Who is responsible for proposing a concrete architecture | Software architect

::U01-Q036::Select software element in runtime dynamic structure | Sessions or transactions

::U01-Q037::Which is NOT a type of software architecture? | None of the others

::U01-Q038::According to connector active time, we can classify connector into \_\_\_\_\_\_\_\_\_\_\_\_\_

::U01-Q039::Select the diagram is not used to support the logical view | None of the others

::U01-Q040::Which is NOT UML behavior description diagram? | Component diagrams

::U01-Q041::A component in Component diagram represents | Deployed reusable binary

::U01-Q042::Asynchronous message invocation can be expressed in \_\_\_\_\_\_\_\_\_\_\_\_\_. | Sequence diagram

::U01-Q043::OO principles do not include the following | concurrency

::U01-Q044::Which of the following keywords in the C# language is not an example of its support of encapsulation? | partial

::U01-Q045::Polymorphism implies the following | All of the above

::U02-Q040::The disadvantages of VM are | Additional overhead due to the new layer

::U02-Q044::The advantage of message-driven architecture over event-driven architecture | Loose coupling between message producers and consumers //decoupling

::U01-Q025::Select incorrect statement about design guideline

::U08-Q005::Select the correct statement | All of the others | Software architecture is a static software structure description

::DP-Q20::Identify the design pattern:<br/>Provide a surrogate or placeholder for another object to control access to it. | Proxy

::DP-Q21::Identify the design pattern:<br/>Define the skelton of an algorithm in an operation, deferring some steps to subclasses. | Template method

::DP-Q22::Identify the design pattern:<br/>Define one to many dependency between objects so that when one object change state, all its dependent are notified and updated automatically. | Observer

::DP-Q23::Identify the design pattern:<br/>Define a family of algorithms, encapsulate each one, and make them interchangeable. It lets the algorithm vary independently from clients that use it. | Strategy

::DP-Q24::Identify the design pattern:<br/>Attach additional responsibilities to an object dynamically.It provides a flexible alternative to subclassing for extending functionality. | Decorator

::DP-Q25::Identify the design pattern:<br/>Provides a way to access the elements of an aggregate object sequentially without exposing its underlying representation. | Iterator

::DP-Q26::Identify the design pattern:<br/>Provide an unified interface to a set of interfaces in a subsystem.It define a higher level interface that makes the subsystem easier to use | Facade

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::DP-Q29::A design pattern is: | a solution to a common problem in object-oriented programming

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::DP-Q34::What does GOF stand for in GOF Patterns ? | Gang of Four

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::DP-Q37::Suppose you need to define an interface for creating instances of several related abstract classes without specifying their concrete subclasses. Which of the following patterns would you most likely use? | Abstract Factory

::DP-Q38::Suppose you need to define an abstract interface for creating a complex object from its component parts, but allow different subclasses to create different representations of the parts? Which of the following patterns would you most likely use? | Builder

::DP-Q39::The \_\_\_\_\_\_\_\_\_\_ pattern has two primary criteria for applicability:</br> | Singleton

::DP-005:: Select design pattern in this code below | Factory

::DP-007:: Below is implementation of Singleton design pattern. | private

::DP-008::Below is implementation of Singleton design pattern. | private

::DP-009::Below is implementation of Singleton design pattern. | static

::DP-010::Which design pattern is used in these code below? | Prototype

::DP-020::The \_\_\_\_\_\_ pattern allows changes or additions to a class's structure without changing the actual class. | Visitor | static

::U07-Q051::The pros of the main-subroutine architecture are | a. Top-down refinement design c. DFD mapping

::U11-Q027::Which of the followings is a benefit of component architecture?

::U01-Q005::Select the correct statement

::U02-Q005::Select the correct statement

::U03-Q005::Select the incorrect statement

::U04-Q005::Select the incorrect statement

::U13-Q017::Select correct statement | The MVC model suggests the separation of the user interface from the logic of the software system. | d. All of the others

::U14-Q002::Select the incorrect statement | A component�s granularity has two dimensions, namely domain-independent and domain-specific.

::U01-Q008::Select the topology in which the system composition configuration as layered, flattened, star typed, centralized, or distributed{ | The topology of the static structure

::U01-Q011::To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case?{ | Tradeoff between scalability and performance

::U01-Q014::The system composition configuration as layered, flattened, star typed, centralized, or distributed are described as the topology of the \_\_\_\_\_\_ structure{ | static

::U01-Q016::\_\_\_\_\_\_\_ is a quality attribute that refers to expense of building, maintaining, and operating the system.{ | Cost

::U01-Q018::Select incorrect statement{ | The goal of software design is to build a model that meets functional requirements only.#

::U02-Q009::Which kind of object is represented by a component in component diagram?{ | Deployed reusable binary

::U02-Q012::[html]Select correct statement{ | Static connectors at development time have attributes including direction, synchronization and sequence.

::U02-Q014::Good software architectural designs are based on the recursive application of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | refinement of abstractions.

::U02-Q016::At software development time, the main software elements are \_\_\_\_\_\_\_\_\_.{ | source code

::U02-Q018::Which is NOT an attribute of static structure connectors?{ | Multiplicity#

::U03-Q011::[html]Which kind of UML diagram is an event-oriented diagram and widely used for embedded systems and device software analysis and design?{ | State diagram

::U03-Q013::[html]Which is the most suitable diagram to describe the lifecycle of objects ?{

::U03-Q015::Which is static diagram?{ | All of the others

::U03-Q016::The \_\_\_\_\_\_\_ is a graphical language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system.{ | UML

::U03-Q018::Which view does not belong to 4+1 views model?{ | Scenario view#

::U04-Q012::[html]Select correct statement about inheritance{ | Class can inherit more than one interface

::U04-Q014::In \_\_\_\_\_\_\_\_\_ relationship between 2 classes, the parts of a class have the same lifespan as their owner, and the parts cannot be involved in another com- position.{

::U04-Q015::The open-closed principle is\: open to \_\_\_\_\_ and closed to \_\_\_\_\_\_\_.{ | extension/modification

::U04-Q017:A part involved in a/an\_\_\_\_\_\_\_\_\_\_\_\_ relationship should be born and terminated at the same moment as its owner.{ | composition

::U04-Q018::Parts involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationship do not have to share the same lifespan as the owner.{

::U05-Q013::Select correct statement{ | Concurrency is not supported in batch-sequential architecture

::U05-Q014::A process control system must have the following process control data\:{ | All of the others

::U05-Q015::Process control software architecture belongs to \_\_\_\_\_\_\_\_\_\_\_\_ architecture style.{ | Data flow

::U05-Q017::[html]In which architecture style, each data transformation subsystem or module cannot start its process until its previous subsystem completes its computation.{

::U05-Q018::Compilers are the typical examples of \_\_\_\_\_\_\_\_\_\_ software architectures style.{ | data flow#

::U06-Q011::Which of the followings is NOT the benefit of repository architecture?{

::U06-Q013::The facts or hypothesis are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.{ | Blackboard

::U06-Q015::There are two categories of data-centered architecture\: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | repository and blackboard

::U06-Q016::The rules are stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ component of a blackboard system.{ | knowledge source

::U06-Q018::The data store in the repository architecture is \_\_\_\_\_\_\_\_, and clients of the data store are \_\_\_\_\_\_\_\_\_.{ | passive/active#

::U07-Q012::[html]A \_\_\_\_\_\_\_\_\_\_ architecture is built up on an existing system and provides a virtual abstraction, a set of attributes, and operations.{ | Virtual Machine

::U07-Q014::Data is passed as parameters to subroutines from callers. The ways to pass on parameter data are\:{ | Pass by reference/Pass by value

::U07-Q015::\_\_\_\_\_\_\_\_\_\_\_ is used for the software system where reliability is critical. This is due to the replication (redundancy) of servers.{ | Master-slave architecture

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::U07-Q018::Select correct statement about modules in hierarchical software architecture{ | A lower-level module provides services to its adjacent upper-level modules.#

::U08-Q013::[html]The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions\: \_\_\_\_\_\_\_\_ and\_\_\_\_\_\_\_.{ | event sources/event listeners

::U08-Q014::A \_\_\_\_\_\_\_\_ messaging architecture is composed of message queues, senders, and receivers.{ | Point-to-Point Messaging

::U08-Q015::The \_\_\_\_\_\_\_\_\_\_ architecture is a hub-like architecture where publisher clients send messages to a message topic that acts like a bulletin board.{ | None of the others

::U08-Q017::Select components in Point-to-Point Messaging System{ | Message sender, message receiver, message queue#

::U08-Q018::The buffered message-based software architecture breaks the software system into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.{ | three partitions\: message producers, message consumers, and message service providers#

::U09-Q011::Which of the following is NOT the benefit of the MVC architecture?{ | Supports multiple independent agents

::U09-Q012::Which of the following is typical design domain for the MVC architecture?{

::U09-Q014::In MVC, the \_\_\_\_\_\_\_\_\_ manages the user input requests, controls the sequence of user interactions, selects desired views for output displays, and manages all initialization, instantiations, and registrations of other modules .{

::U09-Q016::\_\_\_\_\_ was developed from MVC to support the application requirement of multiple agents in addition to interactive requirements.{ | PAC

::U09-Q018::Two major style categories of interaction-oriented architectures are\:{ | Presentation-Abstraction-Control and Model-View-Controller#

::U10-Q009::[html]Select the type of application which is an example of SOA architecture.{ | Web service#

::U10-Q010::[html]Which of the following is a typical style of distributed architecture?{ | All of the others#

::U10-Q015::A \_\_\_\_\_\_\_\_\_\_ is a service that communicates with other services or clients via standard protocols and technologies such as SOAP, XML, and HTTP.{

::U10-Q016::The broker architecture have many kind of subcomponents , that includes\:{ | All of the others

::U10-Q018::Select the basic form of multi-tier architecture{ | Client-server architecture#

::U11-Q010::How many categories of connections between components in UML component?{

::U11-Q014::A \_\_\_\_\_\_\_\_\_\_\_\_ is a deployable software package that can provide services to its clients.{ | component

::U11-Q016::\_\_\_\_\_\_\_\_\_ is a higher level of abstract concept than class. A \_\_\_\_\_\_\_\_\_ may consist of many related classes stored and deployed in the same binary assembly.{ | Component

::U11-Q018::Select incorrect statement{ | None of the others#

::U12-Q014::Select incorrect statement{ | Homogeneous architecture styles are used to combine benefits of multiple styles and to ensure quality and appropriateness.

::U12-Q016::Select the correct statements{ | All of the others

::U12-Q018::The general idea of \_\_\_\_\_\_\_\_\_ is to evaluate candidate architecture designs using a collection of scenarios.{ | AAM (Software Architecture Analysis Method)#

::U13-Q014::Select correct statement{ | All of the others

::U13-Q016::Which of the following is NOT true for implementing the separation of the user interface from the logic of the software system?{ | Decrease reusability

::U13-Q018::Select correct statement(s){ | All of the others#

::U01-Q008::Select the topology in which the system composition configuration as layered, flattened, star typed, centralized, or distributed{

::U01-Q011::To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case?{

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# Which of the following is a typical design domain for the MVC architecture?| Web server site application

# PAC agents are loosely couple.| True

# Which of the following is NOT an architecture style in hierarchical architecture? | C. Client-Server architecture

# Which of the following is NOT an architecture style in hierarchical architecture? | A. Message-based Architecture

# Sequential flow control can be predetermined in batch sequential. | True (correct)

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True

# Sequential flow control can be predetermined in pipe and filter. |True

# Polymorphism implies the following: | All of the others

# A component architecture can be derived from use case analysis and business concept diagrams|True

# Modifiability and expandability are essentially the same quality attribute. |False

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store. | True.

# Only directly adjacent layers can invoke each other�s methods in a layered architecture. | False.

# The master-slave architecture is a specialized form of main-subroutine architecture. | True.

# Software architecture design involves many software design methodologies and architecture styles. | True

# Pipe-and-filter is one of the architecture styles. | True

# Which of the following is NOT an architecture sytle in hierarchical architecture? | Client-Server architecture

# The software quality attributes are the software non-functional requirements such as | Performance, Usability, Security, Portability

#Which of the following is true about buffered message system All of others

#The below image is a snapshot of which architecture styles following Responitory architecture

#When you are requested to develop a Radar software system, a Traffic management system, et cetera, which of the following architecture is the best suitable for development PAC Architecture

#Which of the following architecture is suitable for the embedded system software design Process-control Architechture

#Which of the following is an Open-Close principle's implication Separate interface and implementation

#Which of following is one limitation of ClientServer architecture Server availability and reliability

#Which of the following is the limitation of Repository Architecture Style Data store reliability and availability is a very important issue

#Based on connector's information carrier, the connectors in software architecture might be classification into\_\_\_\_ Variable, Environment resource, Method, Message

#Which is the following diagram called Sequence diagram

#Polymorphism principles means that\_\_\_ An object can have different appearancebehaviors under different circumstances

#Which of the followings is NOT the benefit of distributed architecture Testability

#Which of the following is a limitation of Non-buffered Event-based architecture Reliability and overhead of indirect invocations

#Which of the following are considered as Business attributes Time to market, Performance, Security

#When will you apply the Process-Control architecture Developing a system which needs to maintain an output data at a stable level

#The constituent parts of the architecture of a system are which of the following Its components, connectors, and the rules governing their interactions

#The Architectural Decision Procedure includes following steps(1)Quantify the quality attributes(2)Determine the required quality attributes in requirement analysis(3)Compute the weighted sum Which is the correct order of these steps 2=1=3

#Which of the following is a limitation of Layered architecture Lower runtime performance

#Which of the following is a limitation of component architecture Adaption of components

#Which of the following is the limitation of message-driven architecture Capacity limit of message queue

#Which of the following is NOT an architecture style in hierarchical architecture Client-Server architecture

#Which of the following statement is TRUE The usability of a user interface is enhanced by consistency and integration

#ATAM is which of the following methods Architecture Trade-off Analysis Method

#Which of the followings is one of distributed architecture Service Oriented architecture

#User Interface Evaluation does NOT focus on which of following features Only the tailor-able of the user interface

#Which of the following is a PAC architecture benefit All of the others

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#Sequence diagrams are used to support\_\_\_ The logical view

#Which of the followings is a typical style of Hierarchical architecture Hierarchical structure, Layered, Master-Slave, Virtual Machine

#Which of the following is TRUE Hardware independence does not imply software independence

#Below diagram is class diagram of the Event-based architecture style. Which of the following is the best choice (1) Event; (2) Event Listener

#Repository architecture and Blackboard architecture is categorized into which of following architecture style Data-Centered architecture style

#The following diagram is a description of which architecture style Master-Slave architecture

#Which of the following is NOT a buffer-based software architecture Peer-to-Peer Connection

#(1) is better because of which following Easy expansion

#Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following Allows stateful service

#in UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline Sequence Diagram

#In Non-buffered Event-based architecture, how many partitions a system could be broken into 2 partitions

#Which of the following is the advantage of broker architecture Changeability and extensibility

#Portability refers to\_\_\_ The level of independence of the system on software and hardware platforms.

#The acronym SAPCO is used for which of following purpose Describing the Satisfactory principles of user interfaces

#Which is the benefit of MVC Multiple views synchronized with same data model

#Which of the following statement is TRUE One of limitations of Batch Sequence architecture is that it does not support for interactive interfaces

#Which diagram is equivalent to a sequence diagram Collaboration

#Which of the following is one of advantages of Component-based architecture Productivity for the software development and future software development

#With a good software design, Which is the benefit we will get It helps to coordinate development teams to work together orderly

#Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system The same logic can be accessed by different kinds of user interfaces

#The outcome of Object Oriented Analysis stage are Requirement Specification, Initial logic structure of the system

#The following image is an example of Pipe-and-Fiiter architecture

#Which of the following is one of the benefits of asynchronous architecture Loose coupling of modules

#Which of the followings is not typical design domain of the asynchronous architecture Hierarchical structure

#The testing of synchronous architecture is more straightforward than asynchronous architecture TRUE

#4.Implicit notification is often used in MVC architecture tRue

#13. Message-based architecture is appropriate for a compiler in an IDE design False

#1. Which of the following is not a benefit of the MVC architecturea.Supports multiple independent agents

#2.Which of the following is a typical design domain for the MVC architecture Web server site application

#1.Which of the following is not one of the benefits of distributed architecture c. Supports multiple views

#Which of the following is not a typical style of distributed architecture b. Hierarchical structure

#Client-server architecture in general is more scalable than the multi-tier False

#which of the following is not a benefit of component architecture a. Concurrency

#Which of the following is not a benefit of component architecture Performance

#Each component must have its provided ports and required ports FALSE

#Which of the following is used to evaluate architecture designs ALL

#Which of the following is true about heterogeneous architecture If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture

#Modifiability and expandability are essentially the same quality attribute FALSE

#SAAM relies on use cases to test an architecture design FALSE

#There is always an architecture design that can meet all requirements FALSE

#Batch sequential architecture is generally more time efficient than pipe and false

#A user interface is mainly for accepting inputs, conducting computations, and displaying outputs False

#Chapter 3 of this book, on �models for software architecture�, has nothing to do with user interfaces described in this chapter False

#Which of the following is true for implementing the separation of the user interface from the logic of the software system All

#The look and feel of a user interface can be defined by using engineering rules False

#customizable user interface is not a good style since it will confuse users False

#The acronym SAPCO describes The satisfactory principles of user interfaces

#The constituent parts of the architecture of a system are� Its components, connectors, and the rules governing their interactions

#Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain False

#Product line processes are a way to institutionalize systematic reuseFalse FALSE

#Design-for-commonality anticipates variation without compromising commonality False

# software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system fALSE

#reusable assets are limited to code components False

#11. Software components do not need adaptation false

#Which of the following is true about buffered message system Buffered message system is easy to debug

#The below image is a snapshot of which architecture styles following Repository architecture

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#Which of the following architecture is suitable for the embedded system software design Process-Control Architecture

#Which of the following is an Open-Close principle�s implication Separate interface and implementation

#Design produces architecture that specify products and components in the form of Which of the following A detail-level design solution

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#Which of the following is the limitation of Repository Architecture Style Data store reliability and availability is a very important issue.

#Based on connector�s information carrier, the connectors in software architecture might be classification into Variable, Environment resource, Method, Message

#Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

#Which of the following diagram called Sequence diagram

#Polymorphism principles means that An object can have different appearancebehaviors under different circumstances

#Which of the following is NOT the benefit of distributed architecture Testability

#Which of the following is a limitation of Non-Buffered Event-based architecture Reliability and overhead � indirect invocations

#Which of the following are considered as Business attributes . Time to market, Lifetime, Cost

#When will you apply the Process-Control architecture Developing a system which needs to maintain an output data at a stable level.

#The constituent parts of the architecture of a system are which of the following Its components, connectors, and the rules governing their interactions.

#The Architectural Decision Procedure includes following steps(1) Quantify c. 2 = 1 = 3

#Which of the following is a limitation of Layered architecture Lower runtime performance

#Which of the following is a limitation of component architecture Adaption of components

#Which of the following is the limitation of message-driven architecture Capacity limit of message queue.

#Which of the following is NOT an architecture style in hierarchical architecture Client-Server architecture

#ATAM is which of the following methods Architecture Trade-off Analysis Method

#Which of the following is one of distributed architecture Service Oriented architecture

#User Interface Evaluation does NOT focus on which of following features Only the tailor-able of the user interface

#. Which of the following is a PAC architecture benefit All of the others

#State machine diagram is grouped in which of following UML diagram category Behavioral Diagrams

#Sequence diagram are used to support\_\_\_\_ The logical view

#Which of the following is a typical style of Hierarchical architecture Hierarchical structure, Layered, Master-Slave, Virtual Machine

#Which of the following is TRUE Hardware independence does not imply software independence

#Below diagram is class diagram of the Event-based architecture style.

#Repository architecture and Blackboard architecture is categorized into which of following architecture style Data-Centered architecture style

#The following diagram is a description of which architecture style (--- control flow) Blackboard architecture

#Which of the following is NOT a buffer-based software architecture Peer-to-Peer Connection

#In UML 2.0, Which diagram describes time sequence of messages passed between objects in timeline Time Sequence Diagram

#In Non-buffered Event-based architecture, how many partitions a system could be broken into 2 partitions

#Which of the following is the advantage of broker architecture Changeability and extensibility

#. Portability refers to \_\_\_\_ The level of independence of the system on software and hardware platforms.

#The acronym SAPCO is used for which of following purpose Describing the East to use attribute of user interface

#Which is the benefit of MVC Multiple views synchronized with same data model

#Which of the following statement is TRUE . One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

#Which diagram is equivalent to a sequence diagram Collaboration diagram

#Which of the following is one of advantages of Component-based architecture . Productivity for the software development and future software development

#With a good software design. Which is the benefit we will get . It helps to coordinate development teams to work together orderly.

# The outcome of Object Oriented Analysis are Requirement Specification, Initial logic structure of the system

#In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style b. Client-side proxy

#Which of the following are considered as implementation attributes Interoperability, maintainability, prortability, fexibility

#28. SAPCO stands for which It refers to five major principles interface design considersSimple, Aesthetic, Productive, Customizable, Other

#29. In user interface design step. User-centered factor consideration means what Designers must take into account the needs, experiences, and capabilities of the system users.

#Choose the correct statement Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world

#Which of the following are considered as Business attributes Time to market, Lifetime, Cost

#Portability belongs to which of the following quality attributes group Implementation attributes

#Architecture Styles contribute to which of the following Software Quality Attributes

#Usability belongs to which of the following quality attributes group Runtime attributes

#Usability refers to \_\_\_\_ The level of satisfaction from a human perspective in using the system

#In a software architecture, a process, object, service or an instance of software component is \_\_\_\_ A software element

#In Software Dynamic structure, Connectors exhibit which of following attributes ( Choose the best one ) Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

#According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be Variable

#Based on connector's synchronization mode, the connectors could be classified into which categories below Blocking connector and non-blocking connector.

#At software development time, the software element are \_\_\_\_ Source code modules or files which have been assigned functional and non-functional attributes

#Which is the best answer for the meaning of the description of the class diagram below when you read it A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor

#Which is the following diagram called Sequence diagram or Timiming diagram

#Which of the following notations is used to support the physical view None of the others

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#Which of the following is NOT an Open-Close principle's implication Feel free to change software code

#The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_ Requirement Specification, Initial logic structure of the system

#Which of the following is an Open-Close principle's implication Keep attributes private

#Choose the correct statement Object oriented analysis establishes an object-oriented abstract model of the system to be built

#In UML 2.0, Which of the following is TRUE Sequence Diagram describes time sequence of messages passed between objects in timeline

#When will you apply the Batch Sequence architecture Developing a system where each sub-system reads related input files and writes output files

#Which of the following is the INCORRECT statement about active filter It lets connected pipes to push data in and pull data out.

#Which of the following statement is TRUE One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.

#Which of the following is the INCORRECT statement about passive filter It works with a passive pipe which provides readwrite mechanisms for pulling and pushing.

#Which of the following is a CORRECT statement Filters can run in separate threads of the same process.

#The following image is an example of which architecture style Repository architecture style and () is a Data Repository

#In the Repository architecture, Said that the client control the logic flow means what The software component agents control the computation, request and update data on repository actively.

#\_\_\_ are installed in the Blackboard component of the blackboard Facts

#Data store reliability and availability are limitations of which architecture style below Repository architecture

#Which of the following is the benefit of Blackboard Architecture Concurrency

#In DFD, the follow image is a representation of which flow Transaction flow

#Which of the following is NOT the limitation of layered architecture Incremental software development based on increasing levels of abstraction

#With an application that has clean divisions between core services, critical services, user interface services�. Which architecture style will you apply Layered architecture

#A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank A virtual abstraction

#Which of the following is the limitation of virtual machine architecture Overhead due to the new layer

#The limitation of message-driven architecture over event-driven architecture is which of the following Capacity of message queue

#Which architecture style supports scalability and reliability better Buffered message-based architecture (2)

#When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend. Among the styles below, which is the architecture style you will choose to apply into your system architecture Buffered Message-based Architecture style

#Which of the following is the limitation of message-driven architecture Capacity limit of message queue

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice 3 major partitions - Data module, Control module, Presentation Module

#When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose PAC architecture

#What of the following characteristic do MVC and PAC both have Support for developing interactive application

#Which of the followings is a typical design domain of the MVC architecture Web server site application

#Which of the following are PAC architecture's benefits All of the others

#In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers Broker

#Which of the followings is a style of distributed architecture Service Oriented architecture

#Which of the following is the most important quality attribute of Broker architecture style Better decoupling between clients and servers

#Which of the followings is NOT the benefit of distributed architecture Testability

#The image below describes a distributed architecture style. Choose which the suitable style is SOA

#Which is the reason of the increase of overall system reliability when you apply component-based architecture The reliability of each individual component enhances the reliability of the whole system via reuse.

#Which of the following description is TRUE A component is stored in a binary format, executable and deployable.

#Which of the following is a benefit of component-based architecture Independency and flexible connectivity of components

#Which of the following attribute relates to time and space Efficiency

#SAAM is which of the following methods Software Architecture Analysis Method

#Which of the following attribute relates to user interfaces' learning ability Usability

#In User Interface design step, Separation factor consideration means what Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations

#In User Interface design step, Intuitive factor consideration means what The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

#Design produces architectures that specify products and components in the form of which of the following An abstract-level design solution

# Which of the following is NOT the benefit of multi-tier architecture styleLoad balancing (correct)

# Event-based architecture is difficult to test and debugTrue (correct)

# Main- subroutine architecture can also be applied in any object-oriented software designFalse

# Component deployment is a good practice in a layered architecture.True

# In Client-Server architecture style, there are follow typesThin-client, Fat-client

# Client-server architecture is general is better availability than the multi-tier modelFalse

# The following image is an example of one of architecture style below. Which is the best choiceMulti-tierMulti-tier Architecture Style

# Sequential flow control can be predetermined in batch sequentialTrue

# Facts are installed in the Blackboard component of the Blackboard architectureTrue

# RPG is widely used to implement batch sequentialTrue

# Event-based architecture style is a buffered architectureFalse

# Only directly adjacent layers can invoke each other�s methods in a layered architecture.False

# Java can be used to implement a pipe and filter design systemTrue

# The control flow in batch sequential is implicit.True

# The following image is an example of one of architecture style below. Which is the best choiceBProcess-Control architecture

# In Thin-client type, the server includes which of the following processingData storage processing, Business Logic Processing

# Implicit notification is often used in blackboard architectureTrue

# The control flow in pipe and filter is explicitTrue

# FPT�s University CMS is an example of repository designTrue

# The master-slave architecture is a specialized form of main-subroutine architectureTrue

# In Fat-client type, the client includes which of the following processingPresentation processing, Business Logic Processing

# Repository architecture design could NOT be object-oriented designTrue

# Agents in the repository architecture normally do not talk with each other directly, except thought the data store.True

# which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systemsBlackboard architecture

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.True

# The testing of synchronous architecture is more straightforward than asynchronous architecture.True

# Two modules in a data flow system can change their order without any constrains.False

# Multiple event targets can register with same event sourceTrue

# Sequential flow control can be predetermined in pipe and filter.True

# Which of the following is not an open-close principles�s implicationFeel free to change software code.

# Architecture design is about choosing the right single architecture style for a projectFalse

# Software quality attributes must satisfy functional requirementsFalse

# UML diagrams are used for system analysis and designTrue

# The CRC card method in used to identify the responsibilities of each classTrue

# Which of the following notations is used to support the physical viewNon of the others(Sequence,State,Colla)

# Which of the following are considered as implementation attributesInteroperability, maintainability, portability, flexibility

# Which of the following notations is used to support the logical viewAll of the others(Sequence,State,Colla)

# Pipe-and-Filter is one of the architecture stylesTrue

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a description of a box as follow �JohnDoctor�. Which of the following is correct expressionAn object named �John� whose class is �Doctor�

# In UML 2.0 Which of the following is trueSequence diagram both concurrencies and loops can be specified

# Which of the following diagram is NOT an structural diagramSequence diagram

# The purpose of the software design phase is to product a software requirement specificationTrue

# What is a class involved in accomplishing the responsibility of a class called in CRC modelingCollaboration

# Which of the following is open-close principleOpen to extension, close to modification

# Use case diagrams are generated in the early stages of the SDLC. Whereas deployment diagrams are generated in the later stages of the SDLC.True

# Software architecture design is based on the software requirement specificationTrue

# Which are the categories of operations that a class can provideConstructor, Destructor, Accessor, Mutator

# Which of the following are considered as Runtime attributesAvailability, Security, Performance, Usabilty

# Object-oriented design is a design methodologyTrue

# Which view in �4+1� view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.Logical view

# Which of the following is a feature of object oriented methodologyInheritance

# Which is NOT a structure which can be described in a software architectureOperation structure

# Architecture styles contribute to software quality attributesTrue

# Which of the following structures describe the dynamic properties of software architectureSoftware runtime structure

# Abstraction via inheritance is one effective way to achieve the open-close principleTrue

# Polymorphism implies the followingAll of the others

# Which of the following are benefits of object oriented designAll of the others

# Which of the following is an architecture design evaluation methodologySAAM

# SAAM relies on scenarios to test an architecture designTrue

# Which of the following is NOT a benefit of Component architecturePerformance

# RMI is an example of the broker architectureTrue

# Which of the following is NOT a typical style of distributed architectureMVC

# In SOA architecture, Interperability means whatTechnically any client or any services regardless of their Platform, Technology, Vendors, Language implementations

# Event-based architecture is appropriate for a compiler in an IDE designFalse

# The image below is an example of static style of user interce�slaout Which which is the correct answerIt�s 1D layout

# The abstraction and presentation components in a PAC agent do not talk to each other directlyTrue

# The PAC architecture is a hierarchically structured software architectureTrue

# There is always only one architecture design that can meet all requirementsTrue

# Which of the following statements is TRUEa. The usability of a user interfaceThe usability of a user interface is enhanced by consistency and integration.

# A component architecture can be derived from use case analysis and business concept diagramTrue

# Which of the following is NOT the benefit of Broker architecture styleEasy in testing

# Blackboard architecture is difficult to debug and test.True

# Modifiability and expandability are essentially the same quality attribute.False

# Client-server architecture in general is more scalable than the multi-tier modelFalse

# Implicit notication is often used in the MVC architecture.True

# Google Map is an example of services in SOA architectureTrue

# The interaction operations in the use case diagrams should be included as part of provided interfaces of components.True

# Many MVC vender framework toolkits are available is one of the benefits of MVC architecture styleTrue

# Which of the following is TRUE about heterogeneous architectureIf the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

# Coupling in message-driven architecture is even looser than in event-driven architectureTrue

# Batch sequential architecture is general more time efficient then pipe and filterFalse

# In user interface design step.User-centered factor consideration means whatDesigners must take into account the needs, experiences, and capabilities of the system users.

# Core type classes can be recognized as a new componentTrue

# SAPCO stands for whichIt refers to five major principles interface design considersSimple, Aesthetic, Productive, Customizable, Other

# Which is the most appropriate architecture style to develop a radar system like belowPAC

# In CORBA architecture, IDL-Stubs is which corresponding component in the Broker Architecture StyleClient-side proxy

# In user interface evaluation step, we should focus on whatThe usability of the interface

# The constituent elements of software architecture are software elements and their connections.False

# Software architecture design involves many software design methodologies and architecture styles.True

# Software architecture = software architecture stylesFalse

# Which of the following structures describe the static properties of software architectureSoftware code structure

# Different architecture structures have different element and connector typesTrue

# Element and connector attributes are derived from the project requirements.True

# Divide-and-conquer is not a suitable methodology for architecture designFalse

# Deployment decisions should be reflected in early architecture designs.False

# Activity diagrams are used to support the process view.True

# Deployment diagrams are used to support the physical view.True

# Component diagrams are used to support the development view.True

# The software sub modules and their interfaces are described in the logical view.True

# System and network configuration decisions are part of the physical view.True

# Software architecture is concerned only with functional requirements.False

# Prototyping can be used to support UI design.True

# ADL is a programming languageFalse

# ADL can produce target code.True

# ADL is used only for software architecture specification.False

# Composite structure diagrams are based on object diagrams.True

# Component diagrams are based on object diagrams.True

# A UML diagram must provide a complete view of the entire software system.True

# A component is a class or an object.False

# Asynchronous message invocation can be expressed in sequence diagrams.True

# Conditional branching can be represented in sequence diagrams.True

# An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.True

# An interaction overview diagram is based on all low-level interaction diagrams.True

# Which of the following are not benefits of pipe and filter Interactive.

# Which of the followings are not benefits of batch sequentialInteractive.

# COBOL is widely used to implement batch sequential.True

# Two modules in a data flow system can change their order without any constraints.False

# Java can be used to implement a pipe and filter design system.True

# The control flow in pipe and filter is explicit.True

# There are data sharing (shared data) among all subsystems in a data flow system.False

# Sequential flow control can be predetermined in pipe and filterTrue

# Which of the following is not a benefit of repository architectureConcurrency.

# Which of the following is a typical design domain of blackboard architectureAI system

# The Yellow Page of web service is an example of repository designTrue

# Implicit notification is often used in blackboard architecture.True

# Repository architecture design must also be object-oriented design.True

# Loose coupling is used between repository agents.True

# There is tight dependency of agents on the data store in the repository architecture.TRue

# Rule-based knowledge is installed in the blackboard component of the blackboard architecture.False

# The facts or hypotheses are stored in the knowledge source component of a blackboard system.False

# Which of the following is not a benefit of hierarchical architectureConcurrency

# Which of the following is a disadvantage of hierarchical architectureOverhead

# Web service is an example of hierarchy architecture design.True

# Hierarchical architecture is a procedure-oriented design paradigm only.False

# Hierarchical architecture can also be applied in any object-oriented software design.True

# There is data sharing between all layers in a layered architecture.False

# The callback method is typically used in a main-subroutine architecture.False

# The master-slave architecture is a specialized form of main-subroutine architecture.True

# Which of the following is not one of the benefits of distributed architectureSupports multiple views

# Which of the following is not a typical style of distributed architectureHierarchical architecture.

# Client-server architecture in general is more scalable than the multi-tier model.False

# CORBA is an example of the broker architecture.True

# Web service is an example of SOA architecture.True

# CCM is a target technology for component technology.True

# Each component may have its provided ports and required ports from other components.True

# Each component must have its provided ports and required ports.False

# The provided interface ports may be in synchronous or asynchronous modes.True

# A component architecture can be derived from use case analysis and business concept diagram.True

# Core type classes can be recognized as a new component.True

# A core type component does not depend on any other classes.True

# Which of the following is used to evaluate architecture designsALL

# SAAM relies on use cases to test an architecture design.False

# There is always an architecture design that can meet all requirements.False

# Service-oriented architecture is stateless, while component-based architecture is not.True

# Batch sequential architecture is generally more time efficient than pipe and filter.False

# It is beneficial to integrate architecture design with the process of requirements analysis.True

# Event-based architecture is a good candidate for interactive systems with graphic user interface.True

# Blackboard architecture is difficult to debug.True

# A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.False

# Chapter 3 of this book, on �models for software architecture,� has nothing to do with user interfaces described in this chapter.False

# User interface refers to static components and their layout, not dynamically displayed information.False

# The MVC models suggest the separation of the user interface from the logic of the software systemTrue

# The look and feel of a user interface can be defined by using engineering rules.False

# A customizable user interface is not a good style since it will confuse users.False

# The usability of a user interface is enhanced by consistency and integration.True

# The acronym SAPCO describes The satisfactory principles of user interfaces

# The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.True

# The constituent parts the architecture of a system areIts components, connectors, and the rules governing their interactions.

# Domain analysis identifies the various common features in a domain and their differences.True

# Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.False

# Product line processes are a way to institutionalize systematic reuse.False

# Design-for-commonality anticipates variation without compromising commonality.False

# A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.True

# A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.False

# Reuse is not an end in itself but a means to an end.True

# Reusable assets are limited to code components.False

# Software components do not need adaption.False

# Horizontal reuse refers to the use of an asset across several distinct domains or different product line.True

# Which of the following is not a benefit of the MVC architectureSupport multiple independent agents

# Which of the following is a typical design domain for the MVC architectureWeb server site application

# Traffic control agents in a city traffic management system may be designed using PAC.True

# Implicit notification is often used in the MVC architecture.True

# The data in the Model component of the MVC architecture is activeTrue

# The data in the Abstraction component of a PAC agent is passive.True

# PAC agents are loosely couple.True

# The Abstraction and Presentation component in a PAC agent do not talk to each other directly.True

# The Look and Feel feature is well supported in the MVC architectureTrue

# The PAC architecture is a hierarchically structured software architecture.True

#\_\_\_are installed in the Blackboard component of the blackboard architecture Rules and Facts

#'A' character in SAPCO is which of the following Aesthetic

#Choose the correct Software Architecture Design guideline. Think of what to do before thinking of howto do it

#Choose the correct statement. Runtime connectors in software runtime structure inherit attributes from source code structure without any extension

#Choose the correct statement Component diagram describes the package structure and organization. It covers classes in the package and packages within another package

#Choose the incorrect statement UML diagram could be group into 3 major categories Structural, Behavioral and Deploymen

#Class diagram is grouped in which of following UML diagrams category Structural Diagrams

#CORBA is a good implementation example of\_\_\_\_ Broker Architecture

#In an architecture styles, which of the following is the components that perform functions required by a system Elements

#In Client-Server architecture style, there are follow types Thin-Client Fat-Client

#In SOA architecture. Interoperability means what Technically any client or any service can access other services regardless of thier Plarform, Technology, vendors, Language implementation

#In Software Dynamic structure. Connectors exhibit which of following attributes ( Choose the best one ) Direction. Synchronization. Sequence. Multiplicity. Self-descriptive

#In Thin-Client type, the server includes which of the following processing Data Storage Processing. Business Logic Processing

#In UML, a composition relationship is represented\_\_\_\_ Using a solid diamond arrowhead.

#In User Interface evaluation step, we should focus on what of the following The usability of the interface

#Interoperability refers to\_\_\_ The universal accessibility and the ability to exchange data with internal components and the outside world.

#Repository architecture and Blackboard architecture is categorized into which of following architecture style Data-Centered architecture style

#Sequence diagrams are used to support\_\_\_ The logical view

#Software Design Description includes\_\_\_ The software architecture and the detailed design of the system.

#State machine diagram is grouped in which of following UML diagrams category Behavioral Diagrams

#The Architectural Decision Procedure includes following steps Determine-Quantify-Compute

#The constituent parts of the architecture of a system are which of the following Its components, connectors, and the rules governing their interactions

#The following image is an example of Repository architecture

#The key point of the interaction oriented software architectures is \_ Which is the best answer In the separation of user interactions from data abstraction and business data processing

#The purpose of the software analysis phase is to produce a software requirement specification True

#The software quality attributes are the software non-functional requirements such as Performance. Usability. Security. Portability

#Usability belongs to which ofthe following quality attributes group Runtime attributes

#What is called in CRC modeling a class that is involved in accomplishing the responsibility of a class Co aborator

#Which are the categories of operations that a class can provide Constructor. Destructor. Accessor. Mutator

#Which is the benefit of MVC Multiple views synchronized with same data model.

#Which is the following diagram called Package diagram

#Which is the following diagram called State machine diagram

#Which of following is one of the limitations of Client - Server architecture Server availability and reliability

#Which of the design below is better (1)

#Which of the design below is better (b)

#Which of the following are benefits of Object Oriented design All of the others

#Which of the following are considered as Runtime attributes Availability. Security. Performance. Usability

#Which of the following attributes which could be observable at runtime vailability. Security. Performance

#Which of the following is a benefit of asynchronous architecture Loose coupling of modules

#Which of the following is an Open-Close principle's implication Separate interface and implementation

#Which of the following is buffer-based software architecture Publish-Subscribe Messaging (P&S)

#Which of the following is NOT a benefit of Component architecture Performance

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#Which of the following is NOT a step in Object oriented design process Design of a UML Use-case diagram

#Which of the following is NOT an architecture style in hierarchical architecture Client-Server architecture

#Which of the following is NOT the benefit of Multi-tier architecture style Load balancing

#Which of the following is Open-Close principle in Object-Oriented Paradigm Open to extension. Close to modification

#Which of the following is the limitation of virtual machine architecture Overhead due to the new layer

#Which of the following is TRUE about heterogeneous architecture It the genenral structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture

#Which of the following notations is used to support the logical view All of the others

#Which of the following notations is used to support the physical view None of the others

#Which of the followings is a style of distributed architecture Multi-tier architecture

#Which of the followings is a style of distributed architecture Service Oriented architecture

#Which of the followings is NOT the benefit of distributed architecture Testability

#Which ofthe following are considered as Business attributes Time to market. Lifetime, Cost

#You will apply the batch sequential architecture when Developing a system where intermediate file is a sequential access file

#(1) is better because ofwhich following Easy expansion

#A component is NOT \_. Which is the best choice A whole system which could be executed independent

#Choose the correct statement Time to market attribute refers to the time it takes from requirement analysis to the date product is released.

#Choose the correct statement. Class diagram shows how classes are statically related, but not how classes dynamically interact with each other.

#Choose the incorrect statement Inheritance relation is another name of composition relation

#Choose the incorrect statement Sequence diagram combines activity and use-case diagram to provide control flow overview of the system and business process

#In an architecture styles, which of the following is the components defining how elements can be integrated to form the system Constraints

#In Client-Server architecture style, there are follow types Thin-Client Fat-Server

#In interaction oriented software architecture. \_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice The view presentation module

#In Thin-Client type, the server includes which of the following processing. Data Storage Processing. Business Logic Processing

#in UML 2.0. Which diagram describes time sequence of messages passed between objects in timeline Time Sequence Diagram

#In UML 2.0. Which of the following is TRUE Sequence Diagram both concurrencies and loops can be specified

#In UML. a composition relationship is represented\_\_\_ Using a solid diamond arrowhead.

#In User Interface design step. User-centered factor consideration means what Designers must take into account the needs, experiences, and capabilities of the system users.

#Interoperability refers to\_\_\_\_ The universal accessibility and the ability to exchange data with internal components and the outside world.

#Object-Oriented principles includes\_\_\_\_\_ Inheritance. Encapsulation. Polymorphism

#Package diagram is grouped in which of following UML diagrams category Structural Diagrams

#Rule-based knowledge is installed in the\_\_\_\_component of the blackboard architecture Control

#SAAM is which of the following methods Software Architecture Analysis Method

#Software Design Description includes The software architecture and the detailed design of the system.

#The below image is a snapshot of which architecture styles following MVC architecture

#The below image is a snapshot of which architecture styles following PAC architecture

#The diagram given below is the class diagram of the Event-based architecture style. (1) Event Source; (2) Event Listener

#The following diagram is a description of which architecture style MVC Architecture

#The limitation of message-driven architecture over event-driven architecture is which of the following Capacity of message queue.

#Usability refers to\_\_\_\_ The level of satisfaction from a human perspective in using the system.

#Use case diagrams are generated in the early stages of the Software Design Life Cycle, whereas deployment diagrams are generated in the later stages of the Software Design Life Cycle True

#Which is NOT a software structure that a software architecture can be described with State structure

#Which is NOT the way to make the data flow in Pipe and Filter architecture Leave data in a center repository

#Which is the INCORRECT guide for mapping run time elements If an element is re-entrant it can not be implemented by a thread or a process.

#Which of the below description is a limitation of MVC architecture style Does not fit well agent-oriented applications such as interactive mobile and robotics applications

#Which of the following attributes which could be observable at runtime Availability. Security. Performance

#Which of the following guides is NOT the guideline for mapping run time elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to a local method invocation.

#Which of the following is a limitation of Layered architecture Lower runtime performance

#Which of the followings is a typical design domain of the MVC architecture Web server site application

#Which of the following is a limitation of Non-buffered Event-based architecture Reliability and overhead of indirect invocations

#Which of the following is NOT a typical style of distributed architecture Client-Server architecture

#Which of the following is NOT an architecture style in hierarchical architecture Message-based Architecture

#Which of the following is NOT an Open-Close principle's implication Feel free to change software code.

#Which of the following is the benefit of Blackboard Architecture Concurrency

#Which of the following is the benefit of layered architecture Incremental software development based on increasing levels of abstraction

#Which of the following is the design style could be applicable in Weather broadcast Pattern recognition and authentication in information security systems (Choose the best one) Blackboard Architecture

#Which of the following is the limitation of Repository architecture Data store availability

#Which of the following statement is TRUE Deployment diagrams are used to support the physical view

#Which of the following statement is TRUE One of benefits of Pipe and Filter architecture is Concurrency.

#Which of the following statement is TRUE Three-tier is a variant of Client-Server architecture.

#Which of the followings are categorized into Hierarchical architecture styles Hierarchical structure. Layered. Master-Slave. Virtual Machine

#Which of the followings is a style of distributed architecture Master - Slave architecture

#Which ofthe following is an architecture design evaluation methodology SAAM

#You will apply the batch sequential architecture when Developing a system where intermediate file is a sequential access file.

#A\_\_\_\_\_\_\_\_\_\_\_is a collection of computational and storage devices connected through a communications network Distributed system

#Which kind of class is not used in ananalysis class diagram Concrete class

#Which of the following is NOT buffer-based Callback

#When do we use pipe& filter architecture All of the others

#Which is a deployable software package that can provide services to its clients Component

#For a large-scale software project, \_\_\_\_\_\_\_\_\_\_\_\_\_\_styles are used to combine benefits of multiple styles and to ensure quality and appropriateness. heterogeneous architecture

#The nonbuffered event-based implicit invocation architecture breaks the software system into two partitions\_\_\_\_\_\_\_and event sourcesevent listeners

#The multiplicity is described in\_\_\_\_\_\_\_\_\_\_\_ composite diagram

#The data store in the repository architecture is\_\_\_\_\_\_, and clients of the data store are\_\_\_\_\_\_\_\_\_. passiveactive

#\_\_\_\_\_\_\_\_\_refers to the universal accessibility and the ability to exchange data with internal components and the out side world. Interoperability

#The\_\_\_\_\_\_\_\_\_\_\_\_software architecture style views the entire software system as a series of transformations on successive sets of data, where data and operations on it are independent of each other. data flow

#Which of the following is false for implementing the separation of the user interface from the logic of the software system None of the others

#Which style of hierarchical architecture are often applied in traditional programming Main-subroutine

#Which kind of UML diagram can be expressed asynchronous message invocation Sequence diagram

#Select correct statement(s)Statement1Good software architectural designs are based on the recursive

#A\_\_\_\_\_\_\_\_\_is a modular (cohesive), deployable (portable), replaceable (plug-and-play), and reusable set of well defined functionalities that encapsulates its implementation and exports it as a higher-level interface. component

#Select the disadvantages of direct manipulation None of the others

#Select incorrect statement Agents in the repository architecture normally Agents in the repository architecture normally do not talk with each other directly, except though data store.

#Which of following software system cannot bedesigned using PAC Compiler

#Select incorrect statement about module ininteraction-oriented software architecture The data repository module determines the flow of control involving view selections communications between modules, job dispatching, and certain data initialization and system configuration actions

#How many different way are there to move data in PF 3

#Which is not correct way to use a component lookup in EJB

#Which is not component in interaction-oriented software architecture Data repository

#To ensure consistency of all servers, performance of the whole service is sacrificed. What is kind of quality trade-off in this case Trade off between scalability and performance

#Which tool can be used to describe an architecture style 4+1 view model

#Virtual machine architecture is a sub-type of\_\_\_\_\_\_\_\_architecture. Hierarchical

#Which task should not be the first activity of software architects when the software project start Collecting project requirements

#Select the partition of nonbuffered event-based implicit invocation architecture 1.Event listeners 2.Event sources

#Which are the different between component-oriented design and object-oriented design All of the others

#Which style of architecture is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability Master-slave

#There are two categories of data-centered architecture\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. 1.blackboard 2.repository

#The benefit of the broker architecture All of the others

#Which of the following is NOT the benefit of the MVC architecture Supports multiple independent agents

#Which of the followings is NOT the benefit of hierarchical architecture concurrency

#Which of the followings is NOT the benefit of repository architecture Loose coupling

#Which of the following is true All of the others

#Which is dynamic diagram Use-case diagram

#The\_\_\_\_\_\_\_\_is a variant of the main-subroutine architecture style that supports fault tolerance and system reliability. Master-slave architecture

#Typical OO languages include the following All of the others

#Select the benefits of nonbuffered event-based implicit invocation architecture All of the others

#Which is the most suitable diagram to describe the lifecycle of objects Object diagram

#The facts or hypothesis are stored in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_component of a blackboard system. Blackboard

#Which of the following notations is not used to support the logical view Deployment diagram

#Which of the following is not considered as event-driven Callback

#Polymorphism implies the following the same operation might behave differently at runtime

#\_\_\_\_\_\_\_\_\_is the most commonly distributed system architectures Client-servermodel

#In ClientServer architecture All of the others

#Select correct statement about inheritance Class can inheritances more than one interface

#Select correct statement None of the others

#Select incorrect statement JDBC is XML based

#Select incorrect statement Data repository architecture issuitable for artificial intelligent systems and expert systems

#Select correct statement Pipe and filter is generally more time efficient than batch sequential.

#Select correct statement A user interface is mainly for accepting inputs and displaying outputs

#Select correct statement Aprotocol-based connector can better support interactions between heterogeneou selements

#Select incorrect statement Design user interfaces are the task of the software designers and developers have nothing with the software users

#Select correct statement Concurrency is not supported in batch-sequential architecture

#Which of the following is the benefit of Blackboard Architecture StyleReusability of knowledge source agents

#In Data Flow architecture, a sub-system can be substituted by other sub-system without affecting the rest of the system as long as what of the followingThe new sub-system is compatible with the corresponding input and output data format.

#Which is the reason why software reuse is criticalAll of the others

#In Non-buffered Event-based architecture, how many partitions a system could be separated into2 partitions

#Which is NOT a software structure that software architecture can be described withState structure

#Choose the incorrect statement.UML diagram could beUML diagram could be group into 3 major categories Structural, Behavioral and Deployment.

#The Architectural Decision Procedure includes following stepsDetermine the,Compute the weighted ,Quantify the1 = 3 = 2

#According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should beMethod

#Availability refers to \_\_\_\_The ability of a system to be available 24x7

#Portability refers to \_\_\_\_The ability to modify the system and extend it conveniently.

#In User Interface design step, Information representation factor consideration means whatDesigners must take into account the needs, experiences, and capabilities of the system users.

#Evaluating the abstraction of software development methodology, Which is the right order ( is higher )Component-based Object-oriented Functional-oriented Service-based

#Quality attributes could be categorized into 3 groups which areImplementation attributes, Runtime attributes, Business attributes

#In Layered architecture, the interface of each layer encapsulates \_\_.All detailed service implementations in the current layer and the interfaces of the layers below.

#You will apply the batch sequential architecture whenDeveloping a system where intermediate file is a sequential access file.

#Which is the suitable architecture style when the application business model allows a component to send information to another and to continue to operate on its own without waiting for an immediate responseBuffered message-based architecture

#Which is the correct order in Object oriented design process(Identify,Class,Construct,Build,Class)1, 4, 3, 2, 5

#In which architecture style, Each subsystem can be a stand-alone program working on input data and producing output dataBatch sequential architecture

#Which of the following is a INCORRECT description about component in Component-based architectureA Component is NOT a modular.

#Which is the CORRECT statement about a pipeA Pipe moves a data stream from one filter to another.

#In UML 2.0, Which of the following is TRUESequence Diagram describes time sequence of messages passed between objects in timeline.

#Which of the following is TRUE about buffered message systemAll of the others

#Which of the following is NOT the benefit of Broker architecture styleEasy in testing

#Which of the following is a limitation of Layered architectureLower runtime performance

#Repository architecture and Blackboard architecture is categorized into which of following architecture styleData-Centered architecture style

#According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it can continue its execution without waiting for a response. Which of the following is CORRECT category the connector should beNon-blocking

#Three Object Oriented Principles are which of followingEncapsulation, Inheritance, Polymorphism

#Which of the following are PAC architecture's benefitsAll of the others

#In interaction oriented software architecture, \_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choiceThe view presentation module

#In interaction oriented software architecture, \_\_\_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choiceThe data module

#In Blackboard architecture, a controller takes which roleIt takes a bootstrap role and overall supervision control.

#Which of the following is the INCORRECT statement about passive filterIt lets connected pipes to push data in and pull data out

#UML diagrams are \_\_\_\_ which are used for system analysis and designTools

#According to the classification on synchronization mode, when your application has 2 software elements (A and B) which communicate with each other by a method invocation and when A call B's method, it must be waited for receiving the method result. Which of the following is CORRECT category the connector should beBlocking

#Which of the following is buffer-based software architecturePeer-to-Peer connection

#Security belongs to which of the following quality attributes groupRuntime attributes

#What is the CORRECT statement about virtual repository(physical)A virtual repository is built up on the top of multiple physical repository

#What is the INCORRECT statement about distributed repositoryAll data are centralized

#Which of the following is an Open-Close principle's implicationSeparate interface and implementation

#Which of the following is NOT an architecture style in hierarchical architectureClient-Server architecture

#For software project resource allocation, the software element are \_\_\_\_Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team

#In the interaction oriented software architectures, data initialization and system configuration actions are the responsibility of which module belowController module

#Which of the following is used to evaluate architecture designAll of the others

#Activity diagrams are used to support \_\_\_\_The process view

#In User Interface design step, Friendliness factor consideration means whatThe behaviors of a user interface should not surprise users. The user interface should include tutorials, searching engines, help facilities, updating links, etc.

#Which of the following is a benefit of component-based architectureIndependency and flexible connectivity of components

#According to IEEE Standard 1471, The system architecture is \_\_\_\_A collection of components organized to accomplish a specific function or set of functions

#In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating serversSkeleton

#In Thin-Client type, the server includes which of the following processing.Data Storage Processing, Business Logic Processing

#Which of the following is NOT an architecture style in hierarchical architectureMessage-based Architecture

#Which of the following statement is TRUE(The usability of a user interface )The usability of a user interface is reduced by consistency and integration

#Which architecture style supports loose coupling between legacy systems and modern systems for integration developmentBuffered message-based architecture

#A class is said to be cohesive if it supports as many associated responsibilities as possible False

#A component is a class or an object False

#A part involved in an aggregation relationship should be born and terminate at the same moment as its owner False

#Activity diagrams are used to support the process view True

#ADL is a programming language False

#ADL is used only for software architecture specification False

#Architecture design is about choosing the right single architecture style for a project False

#Architecture styles contribute to software quality attributes True

#C is a popular OO programming language False

#C is popular OO programming language False

#Client-server architecture in general is more scalable than the multi-tier model False

#Component diagrams are used to support the development view True

#Deloyment decisions should be reflected in early architecture False

#Deployment decisions should be reflected in early architecture designs False

#Deployment diagrams are used to support the physical view True

#Different architectures structures have different element and connector types True

#Divide and conquer is not a suitable methodology for architecture designs False

#Divide-and-conquer is not a suitable methodology for architecture design False

#Element and connector attributes are derived from the project True

#Hierarchical architecture is a procedure-oriented design paradigm only False

#In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow �JohnDoctor�. Which of the following is correct expression An object named �John� whose class is �Doctor�

#In UML 2.0 Which of the following is true Sequence Diagram both concurencies and loops can be specified

#Message-based architecture is appropriate for a compiler in an IDE design False

#Object-oriented design is a design methodology True

#Pipe and filter is one of the architecture styles True

#Polymorphism implies the following All of the others

#Repository architecture design must also be object-oriented design False

#Rule-based knowledge is installed in the blackboard component of the blackboard architecture False

#Sequence diagrams do not describe loops in a message exchange process False

#Sequence diagrams do not describe loops in a message exchange process. False

#Software architecture = software architecture styles False

#Software architecture design involves many software design methodologies and architecture styles True

#Software architecture design is based on the SRS True

#Software architecture is a static software structure description False

#Software architecture is concerned only with functional requirements False

#Software quality attributes must satify functional requirement False

#Software quality attributes must satisfy functional requirements False

#The callback method is typically used in a main-subroutine architecture False

#The constituent elements of software architecture are software elements and their connections False

#The constituent elements of software architecture are software elements and their connections. False

#The control flow in batch sequential is implicit true

#The control flow in pipe and filter is explicit False

#The facts or hypotheses are stored in the knowledge source component of a blackboard system False

#The purpose of software design phase is to produce a software requirement specification False

#The purpose of the software design phase is to produce a software requirement specification False

#The set of classes in a design is nailed down when the analysis class diagram is finished False

#The set of classes in a design is nailed down when the analysis class diagram is finished. False

#There are data sharing (shared data) among all subsystems in a data flow system False

#There are data sharing (shares data) among all subsystems in a data flow systems False

#There is data sharing between all layers in a layered architecture False

#Two modules in a data flow system can change their order without any constraints False

#What is a class involved in accomplishing the responsibility of a class called in CRC modeling Collaborator

#Which are the categories of operations that a class can provide Constructor, Destructor, Accessor, Mutator

#Which is not a structure which can be described in a software architecture Operation structure

#Which of following structures describe the dynamic properties of software architecture Software runtime structure

#Which of following structures describe the static properties of software architecture Software code structuredeploymentmanagement structure

#Which of the following are benefits of OO design All of the above

#Which of the following are benefits of OO design All

#Which of the following are considered as Runtime attribute Availability, Security, Perfomance, Usability

#Which of the following are features of object oriented methodology Inheritance

#Which of the following are features of OO methodology Inheritance

#Which of the following are not benefits of pipe and filter Interactive

#Which of the following diagram is NOT an structural diagram Sequence diagram

#Which of the following is a disadvantage of hierarchical architecture Overhead

#Which of the following is a typical design domain for the MVC architecture Web server site application

#Which of the following is a typical design domain of blackboard architecture Al system

#which of the following is not a benefit of component architecture Concurrency

#Which of the following is not a benefit of component architecture Performance

#Which of the following is not a benefit of hierarchical architecture Concurrency

#Which of the following is not a benefit of repository architecture Concurrency

#Which of the following is not a benefit of the MVC architecture Supports multiple independent agents

#Which of the following is not a typical style of distributed architecture Hierarchical architecture

#Which of the following is not a typical style of distributed architecture Hierarchical structure

#Which of the following is not an Open-Closed principle�s implication Feel free to change software code

#Which of the following is not one of the benefits of distributed architecture Supports multiple views

#Which of the following is one of the benefits of asynchronous architecture Loose coupling of modules

#Which of the following is Open-Closed principle Open to extension, Close to modification

#Which of the following notations is used to support the logical view All of the above

#Which of the following notations is used to support the logical view All

#Which of the following notations is used to support the physical view None of the above

#Which of the following notations is used to support the physical views None

#Which of the following structures describe the dynamic properties of software architecture Software runtime structure

#Which of the followings are not benefits of batch sequential Interactive

#Which of the followings is not typical design domain of the asynchronous architecture Hierarchical structure

#Which view in �4+1� view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc Logicalview

#Activity diagrams are used to support�� The process view

#With a good software design, which is benefit we will get It leads the risk in software production more serious

#which of the following is advantage of broker architecture Changeability and extensibility

#The outcome of Object Oriented Analysis stage are� Requirement Specification, Initial logic structure of the system

#Which of the following if limitation of Non-buffered Event-Based architecture Reliability and overhead of indirect invocations

#Package diagram is grouped in which of following UML diagram category Structure diagram

#Design produces architectures that specify products and components in the form of which of the following A detail-level design solution

#Which of the following is TRUE for implementing the separation of the user interface from the logic of software system all

#The constituent parts of the architecture of a system are which of the following Its component, connectors, and the rules governing their interactions

#Which diagram equivalent to a sequence diagram Collaboration diagram

#Which of the following is NOT benefit of distributed architecture Supports multiple independent argents

#When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development PAC architecture

#Which of the perspective where the connectors in software architecture might be classification into 4 types Variable, environment resource, method, message Based on connector�s information carrier

#ATAM is which of the following methods Architecture Trace-off Analysis Method

#Repository architecture and Backboard architecture is categorized into which of the following architecture style Data-centered architecture style

#The below image is a snapshot of which architecture styles following MVC architecture

#Which of the following is TRUE Time efficiency is usually the most important quality attribute

#Which of the following is one limitation of ClientServer architecture Server availability and reliability

#Which of the following is one of distributed architecture Service-Oriented architecture

#Which of the following is limitation of message-driven architecture Capacity limit of message queue

#When will you apply the Batch Sequence architecture Developing a system where each sub-system reads related input files and writes output files

#Which of the following attributes which could be observable at runtime Availability, Security, Performance

#Which of the following is one of advantages of Component-Based architecture Productivity for the software development and future software development

#In user interface evaluation step, we should focus on what The usability of the interface

#Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute 1.Efficiency 2.Functionality 3.Productivity

#The acronym SAPCO is used for which of following purpose Describing the Easy to use attribute of user interfaces

#Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design If the two elements are mapped to a single process, the connector could be mapped to local method invocation

#Polymorphism principles mean that�. An object can have different appearancebehaviors under difference circumstances

#Compared with SOA, the advantage of SBA is which of the following Allows stateful service

#Which of the following is NOT a buffer- based software architecture Peer-to-peer connection

#Which of the following is an Open-Close principle�s implication Keep attributes private

#Which of the following is NOT the benefit of multi-tier architecture style Load balancing

#Main- subroutine architecture can also be applied in any object-oriented software design False

#In Client-Server architecture style, there are follow types Thin-client, Fat-client

#Client-server architecture is general is better availability than the multi-tier model False

#The following image is an example of one of architecture style below. Which is the best choice Multi-tier Architecture Style

#Event-based architecture style is a buffered architecture False

#Only directly adjacent layers can invoke each other�s methods in a layered architecture False

#The following image is an example of one of architecture style below. Which is the best choice Process-Control architecture

#In Thin-client type, the server includes which of the following processing Data storage processing, Business Logic Processing

#In Fat-client type, the server includes which of the following processing Presentation processing, Business Logic Processing

#which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems Blackboard architecture

#Rule-based knowledge is installed in the blackboard component of the blackboard architecture False

#Two modules in a data flow system can change their order without any constrains False

#main sub-rountine False

#Event based buffer False

#two module False

#Software quality attributes must satify functional requirement FalsE

#Evaluating the scalability of architecture styles, Which is the right order of scalability of distributed architecture styles ( is better ) Client-Server Broker Service-oriented

#What of the following statement about the characteristic in Service-oriented and Broker are CORRECT Both are hard to test and debug.

#Which of the below description is a benefit of PAC architecture style Complete separation of presentation and abstraction

#Which of the following statement is TRUE Three-tier is the same as MVC architecture

#Which of the following statement is TRUE about MVC-I The Controller-View module registers with the Model module

#Which of the following is NOT a typical style of distributed architecture Hierarchical structure architecture

#Which of the following is the correct statement about Component-based architecture It divides the problem into sub-problems each associated with component partitions

#Which is the statement you can describe about MVC architecture style MVC is now a very popular architecture style

#Which is the most appropriate architecture style to develop a radar system like below PAC

#The below image is a snapshot of which architecture styles following Event-based architecture

#Which of the following statement is a correct description about the job of an architecture designer Exhaust all possible solutions, pick up the best one.

#CORBA is a good implementation example of Broker Architecture

#Which of the following attribute related to time and space Efficiency

#Which of the following is NOT a benefit of the MVC architecture Supports multiple independent agents

#The Architectural Decision Procedure includes following steps1) Quantify the quality 2 = 1 = 3

#Which is the statement you can describe about PAC architecture style PAC's Agents are loose coupling and high independent

#Which of the following is the main motivation of Component-based architecture Component reusability

#The key point of the interaction oriented software architectures is \_ Which is the best answer In the separation of user interactions from data abstraction and business data processing

#Which of the following is NOT a benefit of Component architecture Performance

#Which is an advantage of Client-Server Architecture Reusability of server components

#Which of the following is the advantage of Broker architecture Changeability and extensibility

#Which of the following attribute related to error tolerance and availability Reliability

#Which of the following is TRUE about heterogeneous architecture If the general structure of a systemis connected using one architecture style, and each component can use a different one, this is an example ofheterogeneous architecture

#Which is the reason when you apply component-based architecture, overall system reliability will be increased You could increase the reliability of each individual component in your own way.+3

#Which of the following attribute related to hardware independence and installability Portability

#In SOA architecture, Interoperability means what Technically any client or any service can access other services regardless of their Platform, Technology, Vendors, Language implementations

#In Client-Server architecture style, there are follow types Thin-Client, Fat-Client

#Which of the followings is a style of distributed architecture Service Oriented architecture

#In MVC, said that it is easy to plug-in new or change interface views mean which of the following It allows updating the interface views with new technologies without overhang the rest of the system.

#Which of the following is NOT the benefit of Multi-tier architecture style Load balancing

#What of the following characteristic do MVC and PAC both have Support for developing interactive application

#Which of the below description is a limitation of MVC architecture style Does not fit well agent-oriented applications such as interactive mobile and robotics applications

#Time to market belong to which � the following quality attributes group Business attributes

#Which of the following is Open-Close principle Open to extension, Close to modification

#Which of the following are considered as implementation attributes interoperability, Maitainability, Portability, Flexibility

#Which of the following is not an Open-Close principle�s implication Fell free to change software code.

#UML diagram are \_\_ which are used for system analysis and design Tools

#Polymorphism implies the following All of the others

#Abstraction via inheritance is one effective way to achieve to ope-close principle True

#Which of the following is NOT the role of architects Determine market trends or needs evaluation

#Which of the following structures describle the dynamic properties of software architecture Software runtime structure

#At software development time, the software alement are-- Source code moudles or files which have been assigned functional and non-functional attributes

#Architecture design is aboyt choosing the right single architecture style for a project False

#Which view in �4+1� view model indentifies software modules and their boundaries. Interfaces, external environment, usage scenarios, etc. Logical view

#Object-oriented design is design methoddology true

#Which of the following notations is used to support the process view Activity Diagram

#Which od the following diagram is a Structural diagram Class diagram

#In a software architecture, a process, object, service or aninstance of softwarecomponenr is \_\_ A software element

#Which is NOT a structure which can be described in a software architecture Operation structure

#Which od the following is NOT TRUE about Detailed design step We will describe user accessible components only in this step

#Batch-Sequence is one of the architecture styles True

#The purpose of the software analysis phase is to produce a software requirement specification true

# Architects use \_\_ in software construction to divide and conquer the complexities of a problem domain to solve the problem - Various design strategies

# Software quality attributes must satisfy functional requirements False

# The CRC card method is used to identify the responsibilities of each class True

# Which of the following are considered as Runtime attributes Availability, Security, Performance, Usability

# In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors� �HumanPlayer�, An object named �Human� whose class is �player�

# What is an architecture design space Design alternatives that can support fun�

# Which are the categories of operations that a class can provide constructor, destructor, accessor, mutator

# Architecture styles contribute to software quality attributes True

# For software project resource allocation, the software element are Specific manipulation (Design, implementation, debug�.

# Bassed on connector�s information carrier, the connectors in software archete.. Variable, environment resource, method, message

# Which of the following is a principle of Object Ori Polymorphism

# Which is the following diagram called State machine diagram

# Which of the following is not True about architectural design step We will specify the internal details of each�

#At software deployment time, the software element are The executable version of the project modules and files

# Which of the following notations is used to support the physical view None of the others

# In UML 2.0, which of the following is true Sequence diagram describes time sequence of messages passed ..

# Use case diagrams are generated in the early stages of the software design life cycle, whereas deploy True

# Which of the following is the correct order of object oriented design step 1-2-4-3 (CRC-Construct-Build-Class)

# Software architecture design is bassed on the software requirement True

# which of the design below is better (b)

#Agents in the repository architecture normally do not talk with each other directly, except though the data storeTrue

#An event can be either visible or invisibleTrue

#Both Sequential and Parallel processing are supported byPipe and Filter architecture

#COBOL is widely used to implement batch sequentialTrue

#Coupling in message-driven architecture is even looser than in event-driven architectureTrue

#Facts are installed in the Blackboard component of the blackboard architectureTrue

#FPT University's CMS site is an example of repository designTrue

#Hierarchical architecture is a procedure-oriented design paradigm onlyFalse

#Implicit notification is often used in blackboard architectureTrue

#Java can be used to implement a pipe and filter design systemTrue

#Message-based architecture is appropriate for a compiler in an IDE designFalse

#Multiple event targets can register with same event sourceTrue

#Only directly adjacent layers can invoke each other's method in a layered architecture.False

#Rule-based knowledge is installed in the blackboard component of the blackboard architectureFalse

#The control flow in batch sequential is implicitTrue

#The control flow in pipe and filter is explicitTrue

#The master-slave architecture is a specialized form of main-subroutine architectureTrue

#The testing of synchronous architecture is more straightforward than asynchronous architectureTrue

#The yellow page of web service is an example of repository designTrue

#There are data sharing (shared data) among all subsystems in a data flow systemFalse

#Two modules in a data flow system can change their order without any constraintsFalse

#When you apply Layered Architecture style into your system architecture design, why the runtime performance of the system might be slowA client's request or a response to client must go through potentially several layers.

#Which is NOT the way to make the data flow in Pipe and Filter architectureLeave data in a center repository

#Which is the purpose of Main-Subroutine ArchitectureTo reuse the subroutines

#Which is the reasoning method that starts with the initial state of data and proceeds towards a goalForward reasoning

#Which of the following is the design style could be applicable in Weather forecast, Pattern recognition and authentication in information security systems (Choose the best one)Blackboard Architecture

#Which of the following are not benefits of batch sequentialAll of the others

#Which of the following architecture is suitable for the embedded system software designProcess-Control Architecture

#Which of the following are benefits of Non-buffered Event-based architectureFramework availability, Reusability of components, Possibility of parallel execution

#Which of the following are not benefits of pipe and filterInteractive

#Which of the following is buffer-based software architecturePublish-Subscribe Messaging (P&S)

#Which of the following is one of the benefits of asynchronous architectureLoose coupling of modules

#Which of the following is the limitation of Repository Architecture StyleHigh dependency between data structure of data store and its agents.

#Which of the following is the limitation of Repository Architecture StyleOverhead cost of moving data on network if data is distributed

#You will apply the batch sequential architecture whenDeveloping a system where intermediate file is a sequential access file.

1. Activity diagrams are used to support......<61, 64>  
 ASW: a. The process view

2. With a good software design, which is benefit we will get?<2>  
b. It helps to coordinate development teams to work together orderly 

3. Which of the following is advantage of broker architecture?<228, 229>  
a. Changeability and extensibility 

4. The outcomes of Object Oriented Analysis stage are...<84>  
a. Requirement Specification, Initial logic structure of the system 

5. Which of the following if limitation of Non-buffered Event-Based architecture?<186>  
b. Reliability and overhead of indirect invocations

6. Package diagram is grouped in which of following UML diagram category?<41>  
a. Structure diagram 

7. The Architectural Decision Procedure includes following steps:  
1. Determine the required quality attributes in requirement analysis  
2. Quantify the quality attributes  
3. Compute the weighted sum

🡺2-1-3

78. Design produces architectures that specify products and components in the form of which of the following?<349>  
c. A detail-level design solution

9. Which of the following is TRUE for implementing the separation of the user interface from the logic of software system?<328>  
b. The same logic can be accessed by different kinds of user interfaces. 

10. The constituent parts of the architecture of a system are which of the following?<360>  
a. Its component, connectors, and the rules governing their interactions. 

11. Which diagram equivalent to a sequence diagram?<56>  
d. Collaboration diagram

12. Which of the following is NOT benefit of distributed architecture?<243>  
c. Testability 

13. Which of the following architecture is suitable for the embedded system software design?<127>

b. Process-Control Architecture 

14. When you are requested to develop a Radar software system, a Traffic management system, etc, which of the following architecture is the best suitable for development?<210-216>  
b. PAC architecture 

15. Which of the perspective where the connectors in software architecture might be classification into 4 types: Variable, environment resource, method, message?<27>  
a. Based on connector's information carrier 

16. ATAM is which of the following methods?<270>  
a. Architecture Trace-off Analysis Method 

17. Repository architecture and Backboard architecture is categorized into which of the following architecture style?<135>  
a. Data-centered architecture style 

18. Which of the following is TRUE?<272>  
c. Hardware independence does not imply software independence

19. Which of the following is one limitation of Client/Server architecture?<223>  
c. Server availability and reliability

20. Which of the following is limitation of message-driven architecture?<193>  
a. Capacity limit of message queue 

21. When will you apply the Batch Sequence architecture?<118>  
a. Developing a system where each sub-system reads related input files and writes output files. 

22. Which of the following attributes which could be observable at runtime?<10>  
a. Availability, Security, Performance 

23. Which of the following is one of advantages of Component-Based architecture?<260>  
c. Productivity for the software development and future software development 

24. Which of the following statement is TRUE?<298>  
a. The usability of a user interface is enhanced by consistency and integration. 

25. Which of the following is a limitation of Layered architecture?<167>  
a. Lower runtime performance 

26. User interface Evaluation does NOT focus on which of following features?<326>  
a. Only the tailor -able of the user interface 

27. Quality attributes are used to make architectural decision, which of the following is NOT a quality attribute?<10>  
c. Productivity

28. Which of the following is a limitation of component architecture?<261>  
a. Adaption of components 

29. The acronym SAPCO is used for which of following purpose?<315>  
b. Describing the Satisfactory principles of user interface 

30. Which of the following guides is NOT the guideline for mapping runtime elements in a software architecture design?<24>  
a. If the two elements are mapped to a single process, the connector could be mapped to local method invocation. 

32. Availability refers to...

a system's capability to be available

33. Which of the following is NOT an architecture style in hierarchical architecture?<156>  
a. Client-Server architecture 

34. Which of the following is the limitation of Repository Architecture Style?<142>  
 c. Data store reliability availability is a very important issue

<77>

31. Polymorphism principles mean that....

An object can have different appearance/behaviors under difference circumstances

35. Which of the following is the limitation of Repository Architecture Style?  
a. High dependency between data structure of data store and its agency

36. Which of the following is NOT a buffer- based software architecture ?<187 - view all section>  
a. Peer-to-peer connection 

37. Which of the following is a buffer- based software architecture  
b. Publish-Subscribe Messaging(P&S)

38. In UML 2.0, which diagram derived from use case scenarios?<49>  
c. Use-case diagram 

39. Which of the following is an Open-Close principle's implication?<108>  
c. Keep attributes private

40. Which of the following is NOT the benefit of multi-tier architecture style?<224>  
C- Load balancing 

41. In Client-Server architecture style, there are follow types:<223 224>  
B- Thin-client, Fat-client 

42. In Thin-client type, the server includes which of the following processing <224>  
C- Data storage processing, Business Logic Processing

43. In Fat-client type, the server includes which of the following processing  
A- Presentation processing, Business Logic Processing

44. Which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?

Blackboard

45. Which of following structures describe the static properties of software architecture?<34>  
a. Software code structure. 

46. Which of following structures describe the dynamic properties of software architecture?.< 34>  
b. Software runtime structure

47. Which of the following notations is used to support the logical view?<59>  
d. All of the above

48. Which of the following notations is used to support the physical view?<63>  
d. None of the above

49. Which of the following are benefits of OO design?<109>.  
e. All of the above.

50. Which of the following are features of OO methodology?/<209>  
c. Inheritance 

51. Which are the categories of operations that a class can provide?<100>  
a. Constructor, Destructor, Terminator, Mutator  
b. Constructor, Destructor, Accessor, Mutator   
c. Constructor, Terminator, Accessor, Mutator  
d. Terminator, Destructor, Accessor, Mutator

52. Polymorphism implies the following: < knowledge of OOP, need review>  
a. The same operation might be have different at runtime  
b. The invocation of a method is determined at runtime.  
c. Separate the abstraction interface from concrete implementation.  
d. All of the others

53. Which of the following are considered as Runtime attribute?<10>  
a. Time to Market, Availability, Security, Perfomance  
b. Availability, Security, Testability, Portability  
c. Availability, Security, Performance, Portability  
d. Availability, Security, Performance, Usability

54. Which of the following is not an Open-Closed principle's implication?<108>  
a. Feel free to change software code   
b. Separate interface and implementation  
c. Minimized the used of global variables  
d. Keep attribute private

55. What is a class involved in accomplishing the responsibility of a class called in CRC modeling?<93>  
a. Wrapper  
b. All are wrong  
c. Collaborator

56. Which of the following diagram is NOT an structural diagram<40-41-54>  
a. Deployment diagram  
b. Class Diagram  
c. Component diagram  
d. Sequence diagram

57. In UML 2.0 Which of the following is true?<54>  
a. Sequence Diagram there is no way to specify concurrencies  
b. Sequence Diagram both concurrencies and loops can be specified   
c. Sequence Diagram concurrencies can be specified but not loops  
d. Sequence Diagram there is no way to specify loops

58. In a sequence diagram, boxes on top of the diagram can represent classes, objects and actors. We found a description of a box as follow "John:Doctor". Which of the following is correct expression?<54>  
a. An actor named "Doctor"  
b. An object named "Doctor" whose class is "John"  
c. An object named "John" whose class is "Doctor"   
d. An object named "Doctor"

59. Which of the following is Open-Closed principle?<107>  
a. Open to modification, Close to extension  
b. Open to modification  
c. Close to modification  
d. Open to extension, Close to modification

60. Which is not a structure which can be described in a software architecture?  
a. Dynamic structure  
b. Deployment structure  
c. Static structure  
d. Operation structure  
e. Management structure

61. Which view in "4+1" view model identifies software modules and their boundaries, interfaces, external environment, usage scenarios, etc<57>  
a. Physical view  
b. Process view  
c. Development view  
d. Logical view

62. Which of the following are not benefits of pipe and filter?<126>  
a. Concurrency  
b. Interactive   
c. Incremental  
d. Exchangeable  
e. None of the above  
f. All of the above

63. Which of the following are not benefits of batch sequential?<118>  
a. Concurrency  
b. Interactive  
c. Incremental  
d. Exchangeable  
e. None of the above  
f. All of the above

The below image is a snapshot of which architecture styles following? <201-210>  
a. MVC architecture   
b. Repository architecture  
c. PAC architecture  
d. Event-based architecture

66. Which of the following is true about buffered message system? <187>  
a. Buffered message system is difficult to expand  
b. Buffered message system is easy to debug  
c. Buffered message system is frequently used in graphical user interface systems  
d. All of the others

68. Which of the following architecture is suitable for the embedded system software design?<127>  
a. Pipe and Filter Architecture  
b. Batch-Sequence Architecture  
c. Process-Control Architecture

69. Which of the following is an Open-Close principle's implication?<108>  
a. Keep attributes public  
b. Separate interface and implementation   
c. Maximize the use of global variables

70. Based on connector's information carrier, the connectors in software architecture might be classification into \_\_\_\_\_\_\_\_\_\_\_\_\_\_<27c>  
a. One-Initiator, Two-Initiator, Programmed, Event-driven  
b. Variable, Environment resource, Method, Message   
c. Signature-based, Protocol-based  
d. Blocking, Non-blocking

72. Polymorphism principles means that\_\_\_\_\_\_\_  
a. An object can have different appearance/behaviors under different circumstances.  
b. A class can inherit from its base class.  
c. A class can be seen over its interface (functional specification) but can not be seen over the detailed implementation.

73. Which of the following are considered as Business attributes?<11>  
a. Availability, Security, Lifetime, Usability  
b. Availability, Cost, Performance, Portability  
c. Time to market, Performance, Security  
d. Time to market, Lifetime, Cost

74. When will you apply the Process-Control architecture?<128>  
a. Developing a system which needs to maintain an output data at a stable level.  
b. Developing a system which can be broken into a series of processing steps over data streams.  
c. Developing a system where each sub-system reads related input files and writes output files.

The Architectural Decision Procedure includes following steps:  
(1): Quantify the quality attributes  
(2): Determine the required quality attributes in requirement analysis  
(3): Compute the weighted sum  
Which is the correct order of these steps?  
a. 2 => 3 => 1  
b. 3 => 1 => 2  
c. 2 => 1 => 3

76. ATAM is which of the following methods?<368>  
a. Active Reviews for Intermediate Designs  
b. Software Architecture Analysis Method  
c. Architecture Trade-off Analysis Method   
d. Software Analysis and Modeling Method

77. Which of the following is one of distributed architecture?<234-6>  
a. Black-board architecture  
b. Service Oriented architecture   
c. Repository architecture  
d. Virtual Machine architecture

78. Which of the following is a PAC architecture benefit?<213>  
a. Support for concurrency where multiple agents are running in parallel in different threads or different devices or computers.  
b. Easy to plug-in new agent or replace an existing one.  
c. Support of multi-tasking and multi-viewing  
d. All of the others   
e. Support agent reusability and extendsibility

79. State machine diagram is grouped in which of following UML diagram category?<49-52>  
a. Behavioral Diagrams   
b. Structural Diagrams

80. Sequence diagram are used to support\_\_\_\_<54>  
a. The logical view   
b. The process view  
c. The physical view

83. Compared with Service Oriented Architecture (SOA), the advantage of Component Based Architecture (CBA) is which of the following?<238-279>  
a. Support of new standards such as XML  
b. Allows stateful service  
c. Platform independent

84. In Non-buffered Event-based architecture, how many partitions a system could be broken into?<179>  
a. 4 partitions  
b. 3 partitions  
c. 2 partitions

85. Which is the benefit of MVC<210>  
a. Multiple views synchronized with same data model   
b. Hard to plug-in new or change interface views  
c. Multiple pairs of controllers and views

85. Which of the following statement is TRUE?<118>  
a. One of limitations of Pipe and Filter architecture is that does not support for sequence processing  
b. Batch Sequence architecture and Pipe and Filter architecture are both do not support for parallel processing  
c. One of limitation of Batch Sequence architecture is that it does not support for interactive interfaces

86. Which diagram is equivalent to a sequence diagram?<42>  
a. Activity diagram  
b. Deployment diagram  
c. State machine diagram  
d. Collaboration diagram

87. Which of the following is TRUE for implementing the separation of the user interface from the logic of the software system?<314>  
a. Decrease reusability.  
b. The business logic and the user interface cannot be modified without affecting each other.   
c. Difficult to maintainability  
d. The same logic can be accessed by different kinds of user interfaces.

88. Which of the following are benefits of OO design?<109>  
a. Ease of code reuse.  
b. Well-supported by programming tools  
c. Information hiding  
d. Real-world problems mapping  
e. All

89. Which of the following are features of OO methodology?<109>  
a. Concurrency  
b. Interactivity  
c. Inheritance   
d. Exchange ability

90. Which of the following are not benefits of pipe and filter?<126, 129>  
a. Concurrency  
b. Interactive   
c. Incremental

90. Which of the following are not benefits of pipe and filter?<126, 129>  
a. Concurrency  
b. Interactive   
c. Incremental  
d. Exchangeable  
e. None  
f. All

91. Which of the following is not a benefit of repository architecture?<149, 150>  
a. Independent agents  
b. Reusable agents  
c. Concurrency   
d. Loose coupling

92. Which of the following is a typical design domain of blackboard architecture? <148, 150>  
a. AI system  
b. Business information system  
c. Compilers  
d. Virtual machine

93. Which of the following is not a benefit of hierarchical architecture?<167-173>  
a. Concurrency   
b. Interactive   
c. Security  
d. Exchangeable

94. Which of the following is a disadvantage of hierarchical architecture?<167-173>  
a. Overhead   
b. Interface separation   
c. Incremental  
d. Exchangeable

95. Which of the following is one of the benefits of asynchronous architecture?<193-195>  
a. Multiple independent agents  
b. Flexible GUI interfaces  
c. Multiple views  
d. Loose coupling of modules

96. Which of the followings is not typical design domain of the asynchronous architecture<186-195>  
a. Multiple agents in a distributed system  
b. Hierarchical structure   
c. Web server site application  
d. Java AWT and Swing

97. Which of the following is not a benefit of the MVC architecture?< 210-216>  
a. Supports multiple independent agents   
b. Provides flexible GUI interfaces  
c. Supports multiple views  
d. Supports loose data coupling

98. Which of the following is a typical design domain for the MVC architecture?< 210-216>  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
c. Web server site application   
d. Web client site application

99. Which of the following is not one of the benefits of distributed architecture?<243>  
a. Supports multiple independent agents  
b. Scalability  
c. Supports multiple views   
d. Loose-coupling of modules

100. Which of the following is not a typical style of distributed architecture?<222-243>  
a. Client-server  
b. Hierarchical structure   
c. Broker  
d. SOA

101. Which of the following is not a benefit of component architecture?<260-262>  
a. Concurrency   
b. Interactivity  
c. Incrementalism  
d. Productivity

102. Which of the following is not a benefit of component architecture?<260-262>  
a. Performance   
b. Interactivity  
c. Evolution- adaptability  
d. Reusability

103. Which of the following is used to evaluate architecture designs?<270-293>  
a. ATAM  
b. SAAM  
c. ARID  
d. All of the others

104. Which of the following is true about heterogeneous architecture?<271-293>  
a. There is no mixed architecture style at one abstraction level  
b. Heterogeneous architecture implies increased time efficiency   
c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture   
d. None

110. In SOA architecture, Interoperability means what?<236>  
a. Loosely coupled services make themselves easy to scale  
b. More efficient in term of time and cost  
c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations   
d. Any service can be reused by any other service

114. SAPCO stands for which?<315-316>  
a. It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other   
b. It refers to five major principles interface design considers: Simple, Aesthetic, Productive, Customizable, Other  
c. It refers to five major principles interface design considers: Simple, Abstract, profound, Customizable, Observable.  
d. It refers to five major principles interface design considers: Simple, Automatically, profound, Customizable, Observable.

115. Which is the most appropriate architecture style to develop a radar system like below?<210-211>  
a. MVC  
b. Repository  
c. PAC

When you apply Layered Architechture style into system architecture design , why run time performance of the system might be slow?  
A - Exceptions and error handling is difficult.  
B- A client request or a response to client must go through potentially several layrers.  
C- Deadlock by the conflict of interlayer communication

- Which the reasoning method that starts with the initial state of data and proceeds towards a goal?  
A - Initial Reasoning  
B- Backward Reasoning  
C- Toward reasoning  
D- Forward Reasoning

Which of the following are benefits of Non-buffered Event Based architecture?  
A- Support Test and Debug the system, Tight coupling between event sources and their listeners  
B- Independency and flexible connectivity, Reliabity  
C- Support Test and Debug the system, Loose coupling between event sources and their listeners  
D- Framework availabity ,Reusablity of components, Possibility of parallel execution

You will apply the batch sequential architecture when?  
A- Developing a system where intermediate file is a sequential access file  
B- Developing a game application  
C- Developing an order online processing system

Which is NOT the way to make the data flow in Pipe and Filter architecture?  
A- Pull only  
B- Push only  
C- Leave data in a center repository  
D- Pull/Push

Which is the purpose of Main-Subroutine Architecture?  
A- To develop subroutines easier  
B- To support object oriented solutions  
C- To reuse the subroutines

Both Sequential and Parallel processing are supported by  
A- All of the others  
B- Reposipirity Architecture  
C- Pipe and Filter Architecture

A Component is NOT\_\_\_. Which is the best choice?  
A- To be executed  
B- Need to deploy  
C- Stored in a binary format  
D- A whole system which could be executed independent

In interaction oriented software architecture,\_\_\_\_\_ is responsible for visual or audio data output presentation and it may also provide user input interface as well when necessary. Which is the best choice?  
A- The view presentation module  
B- The data module  
C- The control module

The key point of the interaction oriented software architecture is \_\_\_ Which is the best answer?  
A. In the separation of data abstraction from user interaction and business data processing  
B. In the separation of business data processing from user interaction and data abstraction  
C. In the separation of user interaction from data abstraction and business data processing

The important features of a distributed architecture are \_\_\_\_\_\_. Which is the best choice?  
A. service location transparency  
B. all of the others  
C. Services availability  
D. Services reliability

In Interaction oriented software architecture, \_\_\_ provides the data abstraction and all core business logic on data processing. Which is the best choice?  
A- The view presentation module  
B- The control module  
C- The data module

Which of the following is the correct statement about Component-based architecture?  
A- it divides the system into 3 partitions: Model, View and Controller  
B- it divides the system into 2 partition: Event and Event Listener  
C- it divides the problem into sub-problem each associated with component partitions  
D- it divides the system into sub-system which will be deployed

The interaction oriented software architecture decomposes the system into\_\_\_. Which is the best choice?  
A. 2major partitions- Client and Server.  
B.4 Major partitions - Service consumer, Service Provider, Service Registry and Networks.  
C. 5 Major partitions - Stub, skeleton, client, Server and Bridge.  
D. 3 major partitions - Data module, Control module, Presentation Module.

Which of the following statement is a correct description about the job of an architecture designer?  
A- Exhaust all possible solutions, pick up the suitable one.  
B- Find only one feasible solution   
C- Exhaust all possible solutions, pick up the best one

- Which of the following is the main motivation of Component-based architecture?  
A- Component usability  
B- Component reusability  
C- Component reliability  
D- Component security

Which of the following attribute related to time and space?  
A- Efficiency  
B- Portability  
C- Reliabity  
D- Functionality

- Which of the following attribute related to error tolerance and avaibility? Reliability

Which of the following attribute related to hardware independence and installability? Portability

1. Which of the following is NOT the benefit of multi-tier architecture style?  
A- Availablity  
B- Scalability  
C- Load balancing (correct)  
D- Reliability

2. Event-based architecture is difficult to test and debug  
A- True (correct)  
B- False

3. Main- subroutine architecture can also be applied in any object-oriented software design  
A- True  
B- False

4. Component deployment is a good practice in a layered architecture.  
A- True (correct)  
B- False

5. In Client-Server architecture style, there are follow types:  
A- Thin-client, Fat-server  
B- Thin-client, Fat-client (correct)  
C- Fat-client, Thin-server

6. Client-server architecture is general is better availability than the multi-tier model  
A- True  
B- False (correct)

8. Sequential flow control can be predetermined in batch sequential.  
A- True (correct)  
B- False

9. Facts are installed in the Blackboard component of the Blackboard architecture?  
A- True(correct)  
B- False

10. RPG is widely used to implement batch sequential  
A- True....  
B- False

11. Event-based architecture style is a buffered architecture  
A- True  
B- False (correct)

12. Only directly adjacent layers can invoke each other's methods in a layered architecture.  
A- True  
B- False (correct)

13. Java can be used to implement a pipe and filter design system.  
A- True (correct)  
B- False

14. The control flow in batch sequential is implicit.  
A- True (correct)  
B- False

16. In Thin-client type, the server includes which of the following processing  
A- Presentation processing, Business Logic Processing  
B- Presentation processing, Data storage Processing  
C- Data storage processing, Business Logic Processing

17. Implicit notification is often used in blackboard architecture.  
A- True (correct)  
B- False

18. The control flow in pipe and filter is explicit.  
A- True (correct)  
B- False

19. FPT's University CMS is an example of repository design  
A- True  
B- False

20. The master-slave architecture is a specialized form of main-subroutine architecture  
A- True  
B- False

21. In Fat-client type, the client includes which of the following processing  
A- Presentation processing, Business Logic Processing  
B- Presentation processing, Data storage Processing  
C- Data storage processing, Business Logic Processing

22. Repository architecture design could NOT be object-oriented design  
A- True  
B- False

23. Agents in the repository architecture normally do not talk with each other directly, except thought the data store.  
A- True (correct).  
B- False

24. which of the following is the design style could be applicable in Weather broadcast, Pattern recognition and authentication security systems?  
A- Batch sequence architecture  
B- Main subroutine architecture  
C- Pipe and Filter architecture  
D- Blackboard architecture

25. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.  
A- True  
B- False

The testing of synchronous architecture is more straightforward than asynchronous architecture.  
A- True  
B- False

27. Two modules in a data flow system can change their order without any constrains.  
A- True  
B- False

28. Multiple event targets can register with same event source.  
A- True  
B- False

29. Hierarchical architecture is a procedure-oriented design paradigm only.  
A- False  
B- True

30. Sequential flow control can be predetermined in pipe and filter.  
A- True  
B- False

32. Which of the following is not an open-close principles's implication?  
a. Minimize the use of global variables  
b. Feel free to change software code.  
c. Separate interface and implementation  
d. Keep attributes private

33. Architecture design is about choosing the right single architecture style for a project  
a. True  
b. False

34. Software quality attributes must satisfy functional requirements  
a. True  
b. False

35. UML diagrams are used for system analysis and design  
a. True  
b. False

36. The CRC card method in used to identify the responsiblities of each class  
a. True  
b. False

37. Which of the following notations is used to support the physical view?  
a. Sequence diagram  
b. State diagram  
c. Collaboration diagram  
d. Non of the others

38. Which of the following are considered as implementation attributes?  
a. Interoperability, maintainability, prortability, fexibility  
b. Interoperability, Usability, prortability, fexibility  
c. Security, maintainability, prortability, fexibility  
d. Interoperability, maintainability, lifetime, fexibility

39. Which of the following notations is used to support the logical view?  
a. Sequence diagram  
b. Collaboration diagram  
c. State diagram  
d. All of the others

40. Pipe-and-Filter is one of the architecture styles  
a. True  
b. False

41. In a sequence diagram, boxes on top of the diagram can represent classes, objects, and actors. We found a desscription of a box as follow "John:Doctor". Which of the following is correct experssion?  
a. An object named "John" whose class is "Doctor"  
b. An actor named "Doctor"  
c. An object named "Doctor"  
d. An object named "Doctor" whose class is "John"

42. In UML 2.0 Which of the following is true?  
a. Sequence diagram concurrencies can be specified but not loops.  
b. Sequence diagram there is no way to specify concurrencies.  
c. Sequence diagram both concurrencies and loops can be specified  
d. Sequence Diagram there is no way to specify loops.

43. Which of the following diagram is NOT an structural diagram  
a. Class diagram  
b. Deployment diagram  
c. Component diagram  
d. Sequence diagram

44. The purpose of the software design phase is to product a software requirement specification  
a. True  
b. False

45. What is a class involved in accomplishing the responsibility of a class called in CRC modeling?  
a. Collaboration  
b. All are wrong  
c. Wrapper

47. Which of the following is open-close principle?  
a. Close to modification  
b. Open to extension, close to modification  
c. Open to modification, close to extension  
d. Open to modification

48. Use case diagrams are generated in the early stages of the SDLC. Whereas deloyment diagrams are generated in the later stges of the SDLC.  
a. True  
b. False

49. Software architecture design is based on the software requirement specification  
a. True  
b. False

50. Which are the categories of operations that a class can provide?  
a. Terminator, Destructor, Accessor, Mutalor  
b. Constructor, Destructor, Accessor, Mutator  
c. Constructor, Destructor, Terminator, Mutator  
d. Constructor, Termination, Accessor, Mutator

51. Which of the following are considered as Runtime attributes  
a. Time to market, Availability, Security, Performance  
b. Availability, Security, Performance, Usabilty  
c. Avalability, Security, Testability, portability  
d. Avalability, Security, Performance, portability

52. Object-oriented design is a design methodology  
a. True  
b. False

53. Which view in "4+1" view model identifies software module and their boundaries, interfaces, external environment usage senarios, etc.  
a. Logical view  
b. Physical view  
c. Process view  
d. Development view

54. Which of the following is a feature of object oriented methodology?  
a. Concurrency  
b. Exchangeability  
c. Interactivity  
d. Inheritance

55. Which is NOT a structure which can be described in a software architecture?  
a. Management structure  
b. Dynamic structure  
c. Operation structure  
d. Static structure  
e. Deployment struture

56. Architecture styles contribute to software quality attributes  
a. True  
b. False

57. Which of the following structures descibe the dynamic properties of software architecture?  
a. Software code structure  
b. Software management structure  
c. Software runtime structure  
d. Software Deloyment structure

58. Abstraction via inheritance is one effctive way to achieve the open-close principle  
a. True  
b. False

59. Polymorphism implies the following:  
a. The same operation might behave different at run time  
b. The invocation of a method is determied at run time  
c. All of the others  
d. Separate the abstraction interface from the concrete implementation

60. Which of the following are benefits of object oriented design?  
a. Information hiding  
b. Ease of code reuse  
c. Well-supported by programming tool  
d. Real-world prolems mapping  
e. All of the others

61. Which of the following is an architecture design evaluation methodology?  
a. SAAM  
b. CORBA  
c. SAPCO  
d. BMI

62. SAAM relies on scenarios to test an architecture design  
a. False  
b. True

63. Which of the following is NOT a benefit of Component architecture  
a. Performance  
b. Productivity software development  
c. System Evolution  
d. Reusablity

64. RMI is an example of the broker architecture  
a. False  
b. True

65. Which of the following is NOT a typical style of distributed architecture?  
a. SOA  
b. Multi-tier  
c. MVC  
d. Broker

66. In SOA architecture, Interperability means what?  
a. Loosely coupled serviecs make themselves easy to scale  
b. More efficient in term of time and cost  
c. Technically any client or any services regardless of their Platform, Technology, Vendors, Language implementations  
d. Any service can be reused by any other service

67. Event-based architecture is appropriate for a compiler in an IDE design  
a. False  
b. True

69. The abstraction and presentation components in a PAC agent do not talk to each other directly  
a. True  
b. False

70. The PAC architecture is a hieracchically structured sofware architecture  
a. True  
b. False

71. There is always onlyone architecture design that can meet all requirements  
a. False  
b. True

72. Which of the following statements is TRUE?  
a. The usability of a user interface is enhanced by consistency and integration.  
b. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.  
c. The look and feel of a user interface can be defined by using engineering rules.  
d. A customizable user interface is not a good style since it will confuse users.

73. A component architecture can be derived from use case analysis and business concept diagrams  
a. True  
b. False

74. Which of the following is NOT the benefit of Broker architecture style?  
a. Easy in testing  
b. Reusability of server component  
c. Server component implementation and location transparency.  
d. Feasibility of runtime changes of server components.

75. Blackboard architecture is difficult to debug and test.  
a. True  
b. False

76. Modifiability and expandability are essentially the same quality attribute.  
a. True  
b. False

77. Client-server architecture in general is more scalable than the multi-tier model  
a. True  
b. False

78. Implicit notication is often used in the MVC architecture.  
a. False  
b. True

79. Google Map is an example of services in SOA architecture  
a. True  
b. False

80. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.  
a. True  
b. False

81. Many MVC vender framework toolkits are available is one of the benefits of MVC architecture style  
a. True  
b. False

82. Which of the following is TRUE about heterogeneous architecture?  
a. Heterogeneous architecture implies increase time efficiency  
b. None of the others  
c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is an example of heterogeneous architecture  
d. There is no mixed architecture style at one abstraction level

83. Coupling in message-driven architecture is even looser than in event-driven architecture  
a. True  
b. False

84. Batch sequential architecture is general more time efficient then pipe and filter  
a. True  
b. False

85. In user interface design step.User-centered factor consideration means what?  
a. The behaviors of a user interface should not surprise users  
b. User interface should be module-oriened or component-oriented and be able to plug-and-play.  
c. Designers should consider the physical and mental limitations of the humans.  
d. Designers must take into account the needs, experiences, and capabilities of the system users.

86. Core type classes can be recognized as a new component  
a. True  
b. False

87. SAPCO stands for which?  
a. It refers to five major principles interface design considers:Simple, Aesthetic, Productive, Customizable, Other  
b. It refers to five major principles interface design considers:Simple, Aesthetic, Productive,  
Customizable, Other  
c. It refers to five major principles interface design considers:Simple, Abstract, profound, Customizable, Observable.  
d. It refers to five major principles interface design considers:Simple, Automatical, , profound, Customizable, Observable.

88. Which is the most appropriate architecture style to develop a radar system like below?  
a. MVC  
b. Repository  
c. PAC

89. In CORBA architecture, IDL-Stubs is which correspoding component in the Broker Architecture Style?  
a. Client  
b. Client-side proxy  
c. Broker  
d. Server  
e. Server-side proxy

90. In user interface evaluation step, we should focus on what?  
a. The color of the interface  
b. The type of the interface  
c. The usability of the interface

1. The constituent elements of software architecture are software elements and their connections.

F

2. Software architecture design involves many software design methodologies and architecture styles. T

3. Software architecture = software architecture styles.F

5. Different architecture structures have different element and connector types.T

6. Element and connector attributes are derived from the project requirements.T

7. Divide-and-conquer is not a suitable methodology for architecture design.F

8. Deployment decisions should be reflected in early architecture designs.F

9. Activity diagrams are used to support the process view.T

10. Deployment diagrams are used to support the physical view.T

11. Component diagrams are used to support the development view.T

12. The software sub modules and their interfaces are described in the logical view.T

13. Concurrency control activity is part of the process view.T

14. System and network configuration decisions are part of the physical view.T

15. Software architecture is concerned only with functional requirements.F

16. Prototyping can be used to support UI design.T

17. ADL is a programming language.F

18. ADL can produce target code.T

19. ADL is used only for software architecture specification.F

20. Composite structure diagrams are based on object diagrams.T

21. Component diagrams are based on object diagrams.T

22. A UML diagram must provide a complete view of the entire software system.T

23. A component is a class or an object.F

24. Asynchronous message invocation can be expressed in sequence diagrams.T

25. Conditional branching can be represented in sequence diagrams.T

26. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram T

27. An interaction overview diagram is based on all low-level interaction diagrams.T

28. Architecture design is about choosing the right single architecture style for a projectF

1. Which of the following is not a benefit of component architecture?  
a. Concurrency  
b. Interactivity  
c. Incrementalism  
d. Productivity

2. Which of the following is not a benefit of component architecture?  
a. Performance  
b. Interactivity  
c. Evolution-Adaptability  
d. Reusability

3. CCM is a target technology for component technology.  
a. True.  
b. False.

4. Each component may have its provided ports and required ports from other components.  
a. True  
b. False.

5. Each component must have its provided ports and required ports.  
a. True.  
b. False.

6. The provided interface ports may be in synchronous or asynchronous modes.  
a. True  
b. False.

7. A component architecture can be derived from use case analysis and business concept diagram.  
a. True.  
b. False.

8. Core type classes can be recognized as a new component.  
a. True.  
b. False.

9. A core type component does not depend on any other classes.  
a. True.  
b. False.

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.  
a. True.  
b. False.

1. Which of the following is used to evaluate architecture designs?  
a. ATAM.  
b. SAAM  
c. ARID  
d. ALL

2. Which of the following is true about heterogeneous architecture?  
a. There is no mixed architecture style at one abstraction level.  
b. Heterogeneous architecture implies increased time efficiency.  
c. If the general structure of a system is connected using one architecture style, and each component can use a different one, this is one example of heterogeneous architecture.  
d. None.

3. Modifiability and expandability are essentially the same quality attribute.  
a. True.  
b. False.

4. SAAM relies on use cases to test an architecture design.  
a. True.  
b. False.

5. There is always an architecture design that can meet all requirements.  
a. True.  
b. False.

6. Service-oriented architecture is stateless, while component-based architecture is not.  
a. True.  
b. False.

7. Batch sequential architecture is generally more time efficient than pipe and filter.  
a. True.  
b. False.

8. It is beneficial to integrate architecture design with the process of requirements analysis.  
a. True.  
b. False.

9. Event-based architecture is a good candidate for interactive systems with graphic user interface.  
a. True.  
b. False.

10. Blackboard architecture is difficult to debug.  
a. True.  
b. False.

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.  
a. True.  
b. False.

2. Chapter 3 of this book, on "models for software architecture," has nothing to do with user interfaces described in this chapter.  
a. True.  
b. False.

3. User interface refers to static components and their layout, not dynamically displayed information.  
a. True.   
b. False.

4. The MVC models suggest the separation of the user interface from the logic of the software system?  
a. True.  
b. False.

6. The look and feel of a user interface can be defined by using engineering rules.  
a. True.  
b. False.

7. A customizable user interface is not a good style since it will confuse users.  
a. True.  
b. False.

8. The usability of a user interface is enhanced by consistency and integration.  
a. True.  
b. False.

9. The acronym SAPCO describes  
a. The structure of user interfaces  
b. The market values of user interfaces  
c. The satisfactory principles of user interfaces  
d. The development process of user interfaces

10. The Java programing language supports graphical user interface components, layout managers, and event listeners, all needed for designing and implementing user interfaces.  
a. True.  
b. False.

1. The constituent parts the architecture of a system are:  
a. Its components, connectors, and the rules governing their interactions.  
b. Its connectors, concurrency, and the rules governing their interactions.  
c. Its classes, connectors, and the rules governing their interactions.  
d. Its classes, concurrency, and the rules governing their interactions.

2. Domain analysis identifies the various common features in a domain and their differences.  
a. True.  
b. False.

3. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically present in the systems in a given domain.  
a. True.  
b. False.

4. Product line processes are a way to institutionalize systematic reuse.  
a. True.  
b. False.

5. Design-for-commonality anticipates variation without compromising commonality.  
a. True.  
b. False.

6. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common goals.  
a. True.  
b. False.

7. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an asset supported development approach.  
a. True.  
b. False.

8. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs of a selected system.  
a. True.  
b. False.

9. Reuse is not an end in itself but a means to an end.  
a. True.  
b. False.

10. Reusable assets are limited to code components.  
a. True.  
b. False.

11. Software components do not need adaption.  
a. True.  
b. False.

12. Horizontal reuse refers to the use of an asset across several distinct domains or different product line.  
a. True.  
b. False.

Which of the following is not a benefit of the MVC architecture?  
a. Support multiple independent agents  
b. Provides flexible GUI interfaces  
c. Supports multiple views  
d. Supports loose data coupling

Which of the following is a typical design domain for the MVC architecture?  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
c. Web server site application  
d. Web client site application

. Traffic control agents in a city traffic management system may be designed using PAC. T

Implicit notification is often used in the MVC architecture. T

The data in the Model component of the MVC architecture is active T

The data in the Abstraction component of a PAC agent is passive. T

7. PAC agents are loosely couple. T

8. The Abstraction and Presentation component in a PAC agent do not talk to each other directly. T

9. The "Look and Feel" feature is well supported in the MVC architecture. T

10. The PAC architecture is a hierarchically structured software architecture. T

QN=1 (10168) Choose the correct statement.  
a. Interoperability attribute refers to universal accessibility and the ability to exchange data among internal components and with the outside world.  
b. Maintainability and extensibility attribute refers to the degree   
to which the system facilitates the establishment of test cases  
c. Testability attribute refers to the ability to modify the system and conveniently extend it.  
d. Scalability attribute refers to the level of independence of the system on software and hardware platforms

QN=2 (10157) Which of the following are considered as Business attributes?  
a. Time to market, Lifetime, Cost  
b. Availability, Security, Lifetime, Usability  
c. Availability, Cost, Performance, Portability  
d. Time to market, Performance, Security

QN=3 (10153) Portability belongs to which of the following quality attributes group?  
a. Implementation attributes  
b. Runtime attributes  
c. Business attributes

QN=4 (10156) Architecture Styles contribute to which of the following?  
a. Software Quality Attributes  
b. Software Elements  
c. Software Connectors  
d. None of the others

QN=5 (10171) Usability belongs to which of the following quality attributes group?  
a. Implementation attributes  
b. Runtime attributes  
c. Business attributes

QN=6 (10162) Usability refers to \_\_\_\_  
a. The level of independence of the system on software and hardware platforms.  
b. The ability of a system to be available 24x7  
c. The ability to modify the system and extend it conveniently.  
d. The level of "satisfaction" from a human perspective in using the system.

QN=7 (10218) In a software architecture, a process, object, service or an instance of software component is \_\_\_\_  
a. A software element  
b. A software connector  
c. A software quality attribute  
d. A software constraint

QN=8 (10200) In Software Dynamic structure, Connectors exhibit which of following attributes? ( Choose the best one )  
a. Direction, Synchronization, Sequence  
b. Direction, Synchronization, Multiplicity  
c. Direction, Synchronization, Sequence, Multiplicity, Self-descriptive

QN=9 (10237) According to the classification on information carrier, when your application has 2 software elements which are in the same process and they may used a shared variable to exchange information. Which of the following is CORRECT category the connector should be?  
a. Variable  
b. Environment Resource  
c. Method  
d. Message

QN=10 (10211) Based on connector's synchronization mode, the connectors could be classified into which categories below?  
a. Blocking connector and non-blocking connector.  
b. One-initiator connector and two-initiator connector.  
c. Signature-based connector and Protocol-based connector.  
d. Programmed connector and Event-driven connector.

QN=11 (10212) At software development time, the software element are \_\_\_\_  
a. Source code modules or files which have been assigned functional and non-functional attributes.  
b. The executable version of the project modules and files  
c. Specific manipulation (design, implementation, debugging, etc.) of specific code units which has been assigned to the same project team  
d. Threads, Processes, Functional Units and Data Units which may run on the same computer or multiple computer across a network

QN=12 (10273) Which is the best answer for the meaning of the description of the class diagram below when you read it?  
  
a. There are two kinds of Person: Student and Professor, each person lives at only one address. Some addresses would not have any person living at.  
b. There is a Person inheritance from Student and Professor, the person lives at an address.  
c. There are two kinds of Person: Student and Professor. There is no more than one person living at an address. Some addresses might not have any person living at  
d. A person lives at only one address and there are no more than one person living at an address. Some addresses might not have any person living at. The person could be a Student or a Professor.

QN=13 (10264) Which is the following diagram called?  
  
a. Class diagram  
b. Component diagram  
c. Sequence diagram  
d. Package diagram  
e. State Machine diagram

QN=14 (10243) Which of the following notations is used to support the physical view?  
a. Sequence Diagram  
b. Collaboration diagram  
c. State diagram  
d. None of the others

QN=15 (10248) State machine diagram is grouped in which of following UML diagrams category?  
a. Structural Diagrams  
b. Behavioral Diagrams  
c. Activity Diagrams  
d. Construction Diagrams

QN=17 (10302) Which of the following is NOT an Open-Close principle's implication?  
a. Separate interface and implementation  
b. Keep attributes private  
c. Minimize the use of global variables  
d. Feel free to change software code.

QN=18 (10306) The outcome of Object Oriented Analysis stage are \_\_\_\_\_\_  
a. Requirement Specification, Initial logic structure of the system  
b. Initial logic structure of the system, system detailed design description  
c. Requirement Specification, system detailed design description

QN=19 (10300) Which of the following is an Open-Close principle's implication?  
a. Combine interface and implementation  
b. Keep attributes private  
c. Maximize the use of global variables

QN=20 (10290) Choose the correct statement  
a. Object oriented analysis establishes an object-oriented abstract model of the system to be built.  
b. Object oriented analysis is not concerned with initial domain and problem requirement analysis.  
c. Object oriented development process has 2 stages: Object oriented analysis and Object oriented design.  
d. Object oriented analysis relies on two UML tools : Use-case diagram and activity diagram.

QN=21 (10281) In UML 2.0, Which of the following is TRUE?  
a. Sequence Diagram is derived from use case study scenarios.  
b. Sequence Diagram is outline of activity's data and control flow between related objects.  
c. Sequence Diagram describes the life cycle of an objects using a finite state machine.  
d. Sequence Diagram describes time sequence of messages passed between objects in timeline.

QN=22 (10335) When will you apply the Batch Sequence architecture?  
a. Developing a system which needs to maintain an output data at a stable level.  
b. Developing a system which can be broken into a series of processing steps over data streams.  
c. Developing a system where each sub-system reads related input files and writes output files.

QN=23 (10360) Which of the following is the INCORRECT statement about active filter?  
a. It pulls in data and push out the transformed data ( pull push )  
b. It works with a passive pipe which provides read write mechanisms for pulling and pushing.  
c. It lets connected pipes to push data in and pull data out.  
d. It is adopted on the Pipe and Filter mechanism in Unix.

QN=24 (10328) Which of the following statement is TRUE?  
a. One of benefits of Pipe and Filter architecture is that it supports both sequential and parallel execution.  
b. One of benefits of Batch Sequence architecture is that it supports both sequential and parallel execution.

QN=25 (10363) Which of the following is the INCORRECT statement about passive filter?  
a. It lets connected pipes to push data in and pull data out.  
b. It works with a passive pipe which provides read write mechanisms for pulling and pushing.  
c. It works with active pipes that pull data out from a filter and push data into the next filter.  
d. It must provide the read write mechanisms.

QN=26 (10357) Which of the following is a CORRECT statement?  
a. Filters can run in separate threads of the same process.  
b. Filters can NOT run in separate threads of the same process.  
c. Filters run in the same thread of the same process.

QN=28 (10392) In the Repository architecture, Said that the client control the logic flow means what?  
a. The software component agents control the computation, request and update data on repository actively.  
b. The software component agents do not control the computation; they request the data on repository actively.  
c. The software component agents do not control the computation; they receive the updated data notification from repository.  
d. The software component agents control the computation, request the data of the repository and receive the updated data notification.

QN=29 (10380) \_\_\_ are installed in the Blackboard component of the blackboard architecture  
a. Facts  
b. Rules  
c. Rules and Facts

QN=30 (10400) Data store reliability and availability are limitations of which architecture style below?  
a. Repository architecture  
b. Main-Subroutine architecture  
c. Batch Sequential architecture  
d. Pipe-Filter architecture

QN=31 (10374) Which of the following is the benefit of Blackboard Architecture?  
a. Concurrency  
b. Easy to make a decision  
c. Synchronization of multi agents  
d. Debug and Test

QN=33 (10409) Which of the following is NOT the limitation of layered architecture?  
a. Incremental software development based on increasing levels of abstraction.  
b. Exceptions and error handling  
c. Breach ( conflict ) of interlayer communication may cause deadlocks  
d. Lower Runtime performance

QN=34 (10437) With an application that has clean divisions between core services, critical services, user interface services.... Which architecture style will you apply?  
a. Virtual Machine architecture  
b. Master-Slaves architecture  
c. Main-Subroutines architecture  
d. Layered architecture

QN=35 (10441) A virtual machine provides \_\_\_\_\_. Which is the best choice to fill into the blank?  
a. A set of abstraction  
b. A virtual attribute  
c. A virtual method  
d. A virtual abstraction

QN=36 (10415) Which of the following is the limitation of virtual machine architecture?  
a. Portability and machine platform independency  
b. Simplicity of software development  
c. Simulation for disaster working model  
d. Overhead due to the new layer

QN=37 (10450) The limitation of message-driven architecture over event-driven architecture is which of the following?  
a. Asynchronous invocation  
b. Capacity of message queue.  
c. Difficult to test and debug  
d. The coupling between sender and receiver is looser because there are no time constraints dependency

QN=38 (10475) Which architecture style supports scalability and reliability better?  
a. Non-buffered Event-based architecture (1)  
b. Buffered message-based architecture (2)  
c. Both (1) and (2) are the same

QN=39 (10463) When you are requested making a system having some processes which must be done concurrently. In the future, there would be some new processes which can be added into the system, so the system must be easy to extend.  
Among the styles below, which is the architecture style you will choose to apply into your system architecture?  
a. Buffered Message-based Architecture style  
b. Batch-Sequence Architecture style  
c. Virtual-Machine Architecture style  
d. Main Subroutine Architecture style

QN=40 (10449) Which of the following is the limitation of message-driven architecture?  
a. Providing scalability and reliability of message delivery  
b. Capacity limit of message queue.  
c. Supporting batch processing.  
d. Supporting loose coupling

QN=41 (10490) Which of the following is NOT a benefit of the MVC architecture?  
a. Supports multiple independent agents  
b. Provide flexible GUI interfaces  
c. Support Multiple views  
d. Support loose data coupling

QN=42 (10484) The interaction oriented software architecture decomposes the system into \_\_\_\_. Which is the best choice?  
a. 2 major partitions - Client and Server  
b. 3 major partitions - Data module, Control module, Presentation Module  
c. 4 major partitions - Service Consumer, Service Provider, Service Registry and Networks  
d. 5 major partitions - Stub, Skeleton, Client, Server and Bridge

QN=43 (10528) When you are requested to develop an interaction application where the system can be divided into many cooperating agents in a hierarchical manner. Which architecture style will you choose?  
a. MVC architecture  
b. PAC architecture  
c. Pipe and Filter architecture  
d. Main-Subroutines architecture

QN=44 (10503) What of the following characteristic do MVC and PAC both have?  
a. Easy to change Data model  
b. Separation of presentation and abstraction  
c. Support for developing interactive application

QN=45 (10492) Which of the followings is a typical design domain of the MVC architecture?  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
c. Web server site application  
d. Web client site application

QN=46 (10494) Which of the following are PAC architecture's benefits?  
a. Support of multi-tasking and multi-viewing.  
b. Support agent reusability and extensibility.  
c. Easy to plug-in new agent or replace an existing one.  
d. Support for concurrency where multiple agents are running in parallel in different threads or different devices or computers.  
e. All of the others

QN=47 (10569) In Broker architecture, Which component provides APIs for clients to request, servers to respond, registering or unregistering server components, transferring messages and locating servers?  
a. Broker  
b. Client  
c. Server  
d. Stub  
e. Skeleton

QN=48 (10540) Which of the followings is a style of distributed architecture?  
a. Service Oriented architecture  
b. Main-Subroutines architecture  
c. Master-Slave architecture  
d. Black-board architecture

QN=49 (10562) Which of the following is the most important quality attribute of Broker architecture style?  
a. Better decoupling between clients and servers  
b. Better decoupling between clients and brokers  
c. Better decoupling between brokers and servers  
d. Better decoupling between presentation and model

QN=50 (10533) Which of the followings is NOT the benefit of distributed architecture?  
a. Supports multiple independent agents  
b. Scalability  
c. Loose coupling of modules  
d. Testability

QN=51 (10541) The image below describes a distributed architecture style. Choose which the suitable style is?  
  
a. SOA  
b. Client-Server  
c. PAC  
d. Multi-tier

QN=53 (10570) Which of the following description is TRUE?  
a. A component is stored in a binary format, executable and deployable.  
b. A component is a collection of source files, executable and deployable.  
c. A component is a group of files which will be integrated into application sources.

QN=54 (10585) Which of the following is a benefit of component-based architecture?  
a. Independency and flexible connectivity of components  
b. Easy to find suitable available components to reuse.  
c. Adaptation of components is always an issue.  
d. Many component-oriented design tools are available.

QN=55 (10602) Which of the following attribute relates to time and space?  
a. Efficiency  
b. Functionality  
c. Portability  
d. Reliability

QN=56 (10600) SAAM is which of the following methods?  
a. Software Architecture Analysis Method  
b. Architecture Trade-off Analysis Method  
c. Active Reviews for Intermediate Designs  
d. Software Analysis and Modeling Method

QN=57 (10605) Which of the following attribute relates to user interfaces' learning ability?  
a. Usability  
b. Functionality  
c. Efficiency  
d. Portability

QN=58 (10628) In User Interface design step, Separation factor consideration means what?  
a. Designers must take into account the needs, experiences, and capabilities of the system users.  
b. Designers should consider the physical and mental limitations of the humans.  
c. The architecture of the user interface is based on the component-oriented philosophy and the main body should be able to accept plug-in modules.  
d. Separate the user interface from the logic of the software. Thus, the same set of data can be displayed in different information representations.

QN=59 (10624) In User Interface design step, Intuitive factor consideration means what?  
a. Designers must take into account the needs, experiences, and capabilities of the system users.  
b. Designers should consider the physical and mental limitations of the humans.  
c. User Interface should be module-oriented or component-oriented and be able to plug-and-play.  
d. The user interface must be simple, intuitive and full of usability even with no instructions, people can figure out how to use it quickly and begin to use it.

QN=60 (10645) Design produces architectures that specify products and components in the form of which of the following?  
a. An abstract-level design solution  
b. A detail-level design solution  
c. Algorithm and structure solutions  
d. User interfaces layout solutions

1. Which of the following is not a benefit of hierarchical architecture?  
a. Concurrency  
b. Interactive  
c. Security  
d. Exchangeable

2. Which of the following is a disadvantage of hierarchical architecture?  
a. Overhead  
b. Interface separation  
c. Incremental  
d. Exchangeable

3. Web service is an example of hierarchy architecture design.  
a. True  
b. False

4. Hierarchical architecture is a procedure-oriented design paradigm only.  
a. True  
b. False

5. Hierarchical architecture can also be applied in any object- oriented software design.  
a. True  
b. False

6. Only directly adjacent layers can invoke each other's methods in a layered architecture.  
a. True  
b. False

7. Component deployment is a good practice in a layered architecture.  
a. True  
b. False

8. There is data sharing between all layers in a layered architecture.  
a. True  
b. False

9. The callback method is typically used in a main-subroutine architecture.  
a. True  
b. False

10. The master-slave architecture is a specialized form of main- subroutine architecture.  
a. True  
b. False

1. Which of the following is one of the benefits of asynchronous architecture?  
a. Multiple independent agents  
b. Flexible GUI interfaces  
c. Multiple views  
d. Loose coupling of modules

2. Which of the followings is not typical design domain of the asynchronous architecture?  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
c. Web server site application  
d. Java AWT and Swing

3. The testing of synchronous architecture is more straightforward than asynchronous architecture.  
a. True  
b. False

4. Implicit notification is often used in MVC architecture.  
a. True  
b. False

5. Multiple event targets can register with same event source.  
a. True  
b. False

6. An event can be either visible or invisible.  
a. True  
b. False

7. Coupling in message-driven architecture is even looser than in event-driven architecture.  
a. True  
b. False

8. A registered event target must be ready to handle the event when the event is fired off.  
a. True  
b. False

9. A message receiver is not required to be ready when the message arrives.  
a. True  
b. False

10. The notification of events or messages is different from local or remote method invocation.  
a. True  
b. False

11. Multiple consumers can consume a message on a message queue.  
a. True  
b. False

12. An event can be declared on the fly.  
a. True  
b. False

13. Message-based architecture is appropriate for a compiler in an IDE design.  
a. True  
b. False

1. Which of the following is not a benefit of the MVC architecture?  
a. Supports multiple independent agents  
b. Provides flexible GUI interfaces  
c. Supports multiple views  
d. Supports loose data coupling

2. Which of the following is a typical design domain for the MVC architecture?  
a. Multiple agents in a distributed system  
b. Hierarchical structure  
c. Web server site application  
d. Web client site application

3. Traffic control agents in a city traffic management system may be designed using PAC.  
a. True  
b. False

4. Implicit notification is often used in the MVC architecture.  
a. True  
b. False

5. The data in the Model component of the MVC architecture is active.  
a. True  
b. False

6. The data in the Abstraction component of a PAC agent is passive.  
a. True  
b. False

7. PAC agents are loosely coupled.  
a. True  
b. False

8. The Abstraction and Presentation components in a PAC agent do not talk to each other directly.  
a. True  
b. False

9. The "Look and Feel" feature is well supported in the MVC architecture.  
a. True  
b. False

10. The PAC architecture is a hierarchically structured software architecture.  
a. True  
b. False

11. Which of the following is not one of the benefits of distributed architecture?  
a. Supports multiple independent agents  
b. Scalability  
c. Supports multiple views  
d. Loose-coupling of modules

12. Which of the following is not a typical style of distributed architecture?  
a. Client-server  
b. Hierarchical structure  
c. Broker  
d. SOA

13. Client-server architecture in general is more scalable than the multi-tier model.  
a. True  
b. False

14. CORBA is an example of the broker architecture.  
a. True  
b. False

15. Web service is an example of SOA architecture.  
a. True  
b. False

1. Which of the following is not a benefit of component architecture?  
a. Concurrency  
b. Interactivity  
c. Incrementalism  
d. Productivity

2. Which of the following is not a benefit of component architecture?  
a. Performance  
b. Interactivity  
c. Evolution-Adaptability  
d. Reusability

3. CCM is a target technology for component technology.  
a. True  
b. False

4. Each component may have its provided ports and required ports from other components.  
a. True  
b. False

5. Each component must have its provided ports and required ports.  
a. True  
b. False

6. The provided interface ports may be in synchronous or asynchronous modes.  
a. True  
b. False

7. A component architecture can be derived from use case analysis and business concept diagrams.  
a. True  
b. False

8. Core type classes can be recognized as a new component.  
a. True  
b. False

9. A core type component does not depend on any other classes.  
a. True  
b. False

10. The interaction operations in the use case diagrams should be included as part of provided interfaces of components.  
a. True  
b. False

11. Which of the following is used to evaluate architecture designs?  
a. ATAM  
b. SAAM  
c. ARID  
d. ALL

12. Which of the following is true about heterogeneous architecture?  
a. There is no mixed architecture style at one abstraction level.  
b. Heterogeneous architecture implies increased time efficiency.  
c. If the general structure of a system is connected using one architecture style, and each component can use a different one,  
this is one example of heterogeneous architecture.  
d. None

13. Modifiability and expandability are essentially the same quality attribute.  
a. True  
b. False

14. SAAM relies on use cases to test an architecture design.  
a. True  
b. False

15. There is always an architecture design that can meet all requirements.  
a. True  
b. False

16. Service-oriented architecture is stateless, while component-based architecture is not.  
a. True  
b. False

17. Batch sequential architecture is generally more time efficient than pipe and filter.  
a. True  
b. False

18. It is beneficial to integrate architecture design with the process of requirements analysis.  
a. True  
b. False

19. Event-based architecture is a good candidate for interactive systems with graphic user interface.  
a. True  
b. False

20. Blackboard architecture is difficult to debug.  
a. True  
b. False

1. A user interface is mainly for accepting inputs, conducting computations, and displaying outputs.  
a. True  
b. False

2. On "models for software architecture," has nothing to do with user interfaces.  
a. True  
b. False

3. User interface refers to static components and their layout, not dynamically displayed information.  
a. True  
b. False

4. The MVC model suggests the separation of the user interface from the logic of the software system.  
a. True  
b. False

5. Which of the following is true for implementing the separation of the user interface from the logic of the software system?  
a. Increases reusability.  
b. Eases maintainability.  
c. The same contents can be accessed by different kinds of user interfaces.  
d. The business logic and the user interface can be modified without affecting each other.  
e. All above

6. The look and feel of a user interface can be defined by using engineering rules.  
a. True  
b. False

7. A customizable user interface is not a good style since it will confuse users.  
a. True  
b. False

8. The usability of a user interface is enhanced by consistency and integration.  
a. True  
b. False

9. The acronym SAPCO describes  
a. the structure of user interfaces  
b. the market values of user interfaces  
c. the satisfactory principles of user interfaces  
d. the development process of user interfaces

10. The Java programming language supports graphical user interface components, layout managers, and event listeners, all needed  
for designing and implementing user interfaces.  
a. True  
b. False

11. The constituent parts of the architecture of a system are:  
a. its components, connectors, and the rules governing their interactions  
b. its connectors, concurrency, and the rules governing their interactions  
c. its classes, connectors, and the rules governing their interactions  
d. its classes, concurrency, and the rules governing their interactions

12. Domain analysis identifies the various common features in a domain and their differences.  
a. True  
b. False

13. Control-of-variability forms the basis for reusability and standardization by identifying those crosscutting aspects that are typically  
present in the systems in a given domain.  
a. True  
b. False

14. Product line processes are a way to institutionalize systematic reuse.  
a. True  
b. False

15. Design-for-commonality anticipates variation without compromising commonality.  
a. True  
b. False

16. A domain is an area of expertise with specialized particular tasks organized into systems where all tasks work toward a common  
goal.  
a. True  
b. False

17. The goal of systematic reuse is to produce quality software products consistently and predictably by moving toward an assetsupported  
development approach.  
a. True  
b. False

18. A software product line is a collection of components sharing a common, managed set of features that satisfy the specific needs  
of a selected system.  
a. True  
b. False

19. Reuse is not an end in itself but a means to an end.  
a. True  
b. False

20. Reusable assets are limited to code components.  
a. True  
b. False

21. Software components do not need adaptation.  
a. True  
b. False

22. Horizontal reuse refers to the use of an asset across several distinct domains or different product lines.  
a. True  
b. False

1. The constituent elements of software architecture are software elements and their connections.  
a. True  
b. False

2. Software architecture design involves many software design methodologies and architecture styles.  
a. True  
b. False

3. The purpose of the software design phase is to produce a software requirement specification.  
a. True  
b. False

4. Object-oriented design is a design methodology.  
a. True  
b. False

5. Pipe-and-filter is one of the architecture styles.  
a. True  
b. False

6. Software architecture is a static software structure description.  
a. True  
b. False

7. Software quality attributes must satisfy functional requirements.  
a. True  
b. False

8. Architecture styles contribute to software quality attributes.  
a. True  
b. False

9. Software architecture = software architecture styles.  
a. True  
b. False

10. Software architecture design is based on the software requirement specification.  
a. True  
b. False

a, c, d

1. Which of the following structures describe the static properties of software architecture?  
a. Software code structure  
b. Software runtime structure  
c. Software deployment structure  
d. Software management structure

2. Which of the following structures describe the dynamic properties of software architecture?  
a. Software code structure  
b. Software runtime structure  
c. Software deployment structure  
d. Software management structure

3. Different architecture structures have different element and connector types.  
a. True  
b. False

4. Element and connector attributes are derived from the project requirements.  
a. True  
b. False

5. Architecture design is about choosing the right single architecture style for a project.  
a. True  
b. False

6. Divide-and-conquer is not a suitable methodology for architecture design.  
a. True  
b. False

7. Deployment decisions should be reflected in early architecture designs.  
a. True  
b. False

1. Which of the following notations is used to support the logical view?  
a. Sequence diagram  
b. Collaboration diagram  
c. State diagram  
d. All of the above

2. Which of the following notations is used to support the physical view?  
a. Sequence diagram  
b. Collaboration diagram  
c. State diagram  
d. None of the above

3. Activity diagrams are used to support the process view.  
a. True  
b. False

4. Deployment diagrams are used to support the physical view.  
a. True  
b. False

5. Component diagrams are used to support the development view.  
a. True  
b. False

6. The software submodules and their interfaces are described in the logical view.  
a. True  
b. False

7. Concurrency control activity is part of the process view.  
a. True  
b. False

8. System and network configuration decisions are part of the physical view  
a. True  
b. False

9. Software architecture is concerned only with functional requirements.  
a. True  
b. False

10. Prototyping can be used to support UI design.  
a. True  
b. False

11. ADL is a programming language.  
a. True  
b. False

12. ADL can produce target code.  
a. True  
b. False

13. ADL is used only for software architecture specification.  
a. True  
b. False

14. UML diagrams are used for system analysis and design.  
a. True  
b. False

15. Use case diagrams are generated in the early stages of the SDLC, whereas deployment diagrams are generated in the later stages of the SDLC.  
a. True  
b. False

16. Composite structure diagrams are based on object diagrams  
a. True  
b. False

17. Component diagrams are based on object diagrams.  
a. True  
b. False

18. A UML diagram must provide a complete view of the entire software system.  
a. True  
b. False

b

19. A component is a class or an object.  
a. True  
b. False

20. Asynchronous message invocation can be expressed in sequence diagrams.  
a. True  
b. False

21. Conditional branching can be represented in sequence diagrams.  
a. True  
b. False

22. An activation in an object lifeline may have its own cycle message pointed back to itself in a sequence diagram.  
a. True  
b. False

23. An interaction overview diagram is based on all low-level interaction diagrams.  
a. True  
b. False

1. Which of the following are benefits of OO design?  
a. Ease of code reuse  
b. Well-supported by programming tools  
c. Information hiding  
d. Real-world problems mapping  
e. All of the above

2. Which of the following are features of OO methodology?  
a. Concurrency  
b. Interactivity  
c. Inheritance  
d. Exchangeability

3. C is a popular OO programming language.  
a. True  
b. False

4. The set of classes in a design is nailed down when the analysis class diagram is finished.  
a. True  
b. False

5. The CRC card method is used to identify the responsibilities of each class.  
a. True  
b. False

6. Sequence diagrams do not describe loops in a message exchange process.  
a. True  
b. False

7. A class is said to be cohesive if it supports as many associated responsibilities as possible  
a. True  
b. False

8. Abstraction via inheritance is one effective way to achieve the open-closed principle.  
a. True  
b. False

9. A part involved in an aggregation relationship should be born and terminate at the same moment as its owner.  
a. True  
b. False

10. To conform to the open-closed principle the use of global variables should be minimized.  
a. True  
b. False

1. Which of the following are not benefits of pipe and filter?  
a. Concurrency  
b. Interactive  
c. Incremental  
d. Exchangeable  
e. None of the above  
f. All of the above

2. Which of the followings are not benefits of batch sequential?  
a. Concurrency  
b. Interactive  
c. Incremental  
d. Exchangeable  
e. None of the above  
f. All of the above

3. COBOL is widely used to implement batch sequential.  
a. True  
b. False

4. Two modules in a data flow system can change their order without any constraints.  
a. True  
b. False

5. Java can be used to implement a pipe and filter design system.  
a. True  
b. False

6. The control flow in pipe and filter is explicit.  
a. True  
b. False

7. The control flow in batch sequential is implicit.  
a. True  
b. False

8. There are data sharing (shared data) among all subsystems in a data flow system.  
a. True  
b. False

9. Sequential flow control can be predetermined in pipe and filter.  
a. True  
b. False

10. Sequential flow control can be predetermined in batch sequential.  
a. True  
b. False

1. Which of the following is not a benefit of repository architecture?  
a. Independent agents  
b. Reusable agents  
c. Concurrency  
d. Loose coupling

2. Which of the following is a typical design domain of blackboard architecture?  
a. AI system  
b. Business information system  
c. Compilers  
d. Virtual machine

3. The Yellow Page of web service is an example of repository design.  
a. True  
b. False

4. Implicit notification is often used in blackboard architecture.  
a. True  
b. False

5. Repository architecture design must also be object-oriented design.  
a. True  
b. False

6. Agents in the repository architecture normally do not talk with each other directly, except though the data store.  
a. True  
b. False

7. Loose coupling is used between repository agents.  
a. True  
b. False

8. There is tight dependency of agents on the data store in the repository architecture.  
a. True  
b. False

9. Rule-based knowledge is installed in the blackboard component of the blackboard architecture.  
a. True  
b. False

10. The facts or hypotheses are stored in the knowledge source component of a blackboard system.  
a. True  
b. False