Question. 1 Which statement is true?

A. The UML is a development process for software intensive systems.

B. The UML is a process-dependent language used for visualizing software artifacts.

C. The UML is a modeling language for software blueprints.

D. The UML is a visual programming language.

C

Question. 2 In which three ways does a structured class differ from a traditional class? (Choose three.)

A. It clearly defines the class boundary via an encapsulation shell.

B. It brings public interfaces into the class via ports.

C. It shows the role that the class plays.

D. It defines messages between itself and other classes.

A, B, C

Question. 3 Which is a characteristic of a structured class?

A. must have one interface for each role it plays

B. can play only one role, no matter how many objects transact with it

C. can play multiple roles that vary on the objects that interact with it

D. is limited to one role, but can have multiple interfaces

C

Question. 4 Which statement is true about an iterative development process?

A. Testing and integration take place in every iteration.

B. An iteration focuses on partial completion of selected use-case realizations.

C. It encourages user feedback in later iterations.

D. It is based on functional decomposition of a system.

A

Question. 5 Which two statements are true about interfaces? (Choose two.)

A. The interface should have a clear purpose.

B. A single interface should include as many possible methods, if not all methods, that may be shared by objects that implement the interface.

C. An interface should be used to restrict which methods are exposed to a client.

D. Classes may have multiple interfaces depending on the purpose of each interface it implements.

A, D

Question. 6 What is the focus of analysis?

A. translating functional requirements into code

B. translating requirements into a system design

C. translating real-world concepts into solution-oriented objects

D. translating functional requirements into software concepts

D

Question. 7 Why is encapsulation important? (Choose two.)

A. It describes the relationship between two subclasses.

B. It places operations and attributes in the same object.

C. It allows other objects to change private operations and attributes of an object.

D. It prevents other objects from directly changing the attributes of an object.

B, D

Question. 8 What are analysis classes?

A. early conjectures on the composition of the system that usually change over time, rarely surviving intact into Implementation

B. incomplete classes that require a programmer to formalize operation signatures and attribute types before they can be implemented

C. the classes inside a systems Business Object or Domain Model, in UML form

D. a prototype of a systems user interface, developed during the Analysis Phase, which allows users to define the systems look and feel

A

Question. 9 An architect looks at two classes. The first class has the following operations: getName(),getSize(),getTotal(), and findAverage(). The second class has the following operations: getName(),getSize(), findAverage(), findMinimum(), and findMaximum(). The two classes share the same superclass. Which operations are most likely contained in the superclass?

A. getName(), getSize(), and findAverage()

B. findMaximum(), findMinimum(), getSize(), and getTotal()

C. getName(), findAverage(), and findMaximum()

D. getName(), getSize(), getTotal(), and findAverage()

A

Question. 10 An architect is responsible for creating an Analysis Model for a system. Which area of focus is essential for the creation of this model?

A. hardware on which the system will be deployed

B. behavior of the objects that comprise the system

C. evolution of analysis classes into design classes

D. performance requirements of the system

B

Question. 11 What does a required interface do?

A. exposes services to anonymous requestors

B. uses the services that a classifier requires to request from anonymous providers

C. declares the services that a classifier offers to provide anonymous requestors

D. exposes methods that the requestor must use

B

Question. 12 In a sequence diagram, each interaction on the diagram maps to \_\_\_\_\_.

A. a choice point on a state diagram

B. the transition on a state diagram

C. a state on the diagram

D. the initial state

B

Question. 13 Which two questions does the use of multiplicity on relationships allow you to answer? (Choose two.)

A. Is the relationship mandatory or optional?

B. How many links can an object of one type maintain with objects of another type?

C. Is an object of a given type permitted to interact with objects of another type?

D. Is the relationship between objects permanent or temporary?

A, B

Question. 14 What are two important considerations when diagramming state? (Choose two.)

A. Any time a message is received; there may be a change of state.

B. Any time a message is received; there must be a change of state.

C. Whenever there is a change of state, there is a transition.

D. Changing state may not change transition.

A, C

Question. 15 Which statement is true about circular dependencies?

A. They do not matter.

B. They are prohibited.

C. They must be avoided.

D. When there are more than two packages, they are irrelevant.

C

Question. 16 What is the purpose of Architectural Analysis?

A. to detail the design of the system

B. to review the architecture of the system

C. to define a candidate architecture for the system

D. to define the layers of the architecture

C

Question. 17 When the interfaces between two classes have been defined from a sequence diagram, the ports are defined by the \_\_\_\_\_.

A. interface

B. operations the class performs

C. user of the system

D. attributes passed in the sequence diagram

A

Question. 18 Which statement is true about attributes?

A. They cannot change once the object is instantiated.

B. They change value from object to object of the same class.

C. They can only be primitives.

D. They are required for every class.

B

Question. 19 What are the three purposes of Analysis and Design? (Choose three.)

A. to provide an organizational context for the system

B. to transform the requirements into a design of the to-be system

C. to evolve a robust architecture for the system

D. to scope the system to be built and describe what it must do

E. to adapt the design to match the implementation environment

B, C, E

Question. 20 Objects that are polymorphic \_\_\_\_\_.

A. must have the same attributes

B. share all the same operations, and the operations perform the same

C. can only be implemented through interfaces

D. may have the same operation names but the operations perform differently

D

Question. 21 Which is a best practice for nesting structured classes?

A. should limit the nesting of structured classes to two levels per diagram

B. should display all substructured classes of a structured class in a single to show the depth of interactions

C. should be limited to one level of depth, thereby allowing the user to navigate from diagram to diagram to show the next level

D. should be determined by the architect during the design phase

A

Question. 22 During Architectural Analysis, a Software Architect wants to reduce the complexity of the system at work and improve its consistency. What should the Software Architect define to accomplish this?

A. coding rules

B. use-case realizations

C. analysis mechanisms

D. design mechanisms

C

Question. 23 Which two characteristics do all objects have? (Choose two.)

A. primitives

B. state and behavior

C. interfaces

D. a unique identity

B, D

Question. 24 Analysis classes evolve into \_\_\_\_\_. (Choose two.)

A. design classes

B. subsystems

C. use-case realizations

D. design packages

E. architecture

A, B

Question. 25 What happens when a superclass is changed?

A. All subclasses inherit the change.

B. The operations of the subclass must be changed.

C. Additional operations in the subclass that are not associated with the superclass must change.

D. Only the operations of the superclass are inherited.

A

Question. 26 Which two statements are true about use-case realization? (Choose two.)

A. It lists the different steps performed by a use-case.

B. It provides traceability from Analysis and Design back to requirements.

C. It is created by the System Analyst.

D. It describes the use-case in terms of collaborating objects.

B, D

Question. 27 Which state does NOT contain another state?

A. Top State

B. Composite State

C. Simple State

D. Bottom State

C

Question. 28 Which statement is true about grouping elements into a package?

A. Elements in a package should share a logical, common grouping.

B. Packages should contain a small number of elements to avoid confusion.

C. Packages should only be used on large projects requiring a large number of elements.

D. Packages should not contain other packages.

A

Question. 29 What are three architectural mechanism categories? (Choose three.)

A. analysis mechanisms

B. requirement mechanisms

C. implementation mechanisms

D. design mechanisms

A, C, D

Question. 30 In a sequence diagram, what can be defined by the interactions between participants in the interactions?

A. only services provided by an interface

B. only services required by an interface

C. both provided and required services for interfaces

D. the name of the interface

C

Question. 31 Which view focuses on the physical realization of the system?

A. Logical View

B. Implementation View

C. Process View

D. Use-Case View

B

Question. 32 Which statement is true about an active object?

A. It is an independent object that can communicate with other active objects asynchronously.

B. It does not contain state.

C. It is dependent on the overall system execution.

D. It is unstructured to allow the class to be manipulated easily.

A

Question. 33 During Use Case Analysis, what is generally allocated to control classes?

A. behavior specific to a use-case or part of a very important flow of events

B. behavior that involves the data encapsulated within the abstraction

C. behavior that involves communication with an actor

D. behavior specific to business rule enforcement or workflow

A

Question. 34 What are three sources for Key Abstractions identification? (Choose three.)

A. domain knowledge

B. requirements

C. design classes

D. glossary

A, B, D

Question. 35 What is a named object in UML?

A. Matt:Employee

B. :Employee

C. Matt::Employee

D. ::employee

A

Question. 36 During Use Case Analysis, an attribute should be used instead of a class when the information \_\_\_\_\_.

A. is accessed by operations that only get, set, or perform simple transformations

B. is related to entities in the Business or Domain Model

C. needs to be hidden from other parts of the Analysis Model and not shared

D. is referred to and used multiple times throughout the use-case realization

A

Question. 37 Which view is NOT part of the RUP 4+1 View Model?

A. Logical View

B. Distribution View

C. Use-Case View

D. Process View

B

Question. 38 What are two functions of visual modeling? (Choose two.)

A. produces a single model that represents all views of the system

B. improves communication and comprehension among team members

C. documents important design decisions in the code

D. documents system behavior and structure before coding the system

B, D

Question. 39 During Use Case Analysis, why are analysis mechanisms used?

A. to reduce complexity and improve consistency by providing a shorthand representation for complex behavior

B. to simplify the task of creating use-case realizations by providing convenient shorthand for repetitive tasks

C. to gather common tasks into one place, in order to more easily assign them to developers for

implementation

D. to verify that designers have performed the analysis task correctly, according to the architects recommendations

A

Question. 40 Which statement is true about patterns?

A. Patterns only exist at the Design level.

B. Patterns provide a common solution to a common problem.

C. Patterns only exist at the Architectural level.

D. Patterns are only used during the Elaboration Phase.

B

Question. 41 During Use Case Analysis, why is it sometimes necessary to supplement the use-case description?

A. The description of each use-case is not always sufficient for finding analysis classes and their objects.

B. The flow of events in the use-case is sometimes too complex to be implemented.

C. Designers need to know which use-case flows are being developed in the current iteration.

D. The architect may need to adjust incorrect requirements before giving them to the designers.

A

Question. 42 In Use Case Analysis, what is the purpose of the Unify Analysis Classes step?

A. to ensure that each analysis class represents a single well-defined concept, with no overlapping responsibilities

B. to gather the analysis classes from each use-case realization and bring them into the Design Model

C. to make sure the responsibilities of each class are consistent and that the class has a well-defined single purpose

D. to create initial class families by using inheritance to group related classes into tree structures

A

Question. 43 Which three processes are best suited for UML? (Choose three.)

A. use-case driven

B. waterfall development-based

C. iterative and incremental

D. architecture-centric

E. requirements-centric

A, C, D

Question. 44 Architectural layers are commonly modeled in UML using a \_\_\_

A. package stereotyped <<Layer>>

B. subsystem stereotyped <<Layer>>

C. composite class stereotyped <<Layer>>

D. class diagram entitled Layer

A

Question. 45 In a state diagram, a state has two transitions. One of the transitions is an internal transition and the other is an external transition. Which state(s) can perform an exit action?

A. the internal transition only

B. the external transition only

C. neither the internal nor the external transition

D. both the internal and external transitions

B

Question. 46 Which two statements are true about use-case driven processes? (Choose two.)

A. Use-cases are concise, simple, and able to be understood by a wide range of stakeholders.

B. Use-cases help synchronize the content of different models.

C. Use-cases are a complete list of functional requirements.

D. Use-cases specify how the system behavior is to be implemented.

A, B

Question. 47 Which is the primary function of entity classes?

A. store and manage information in the system

B. act as a surrogate or proxy for the actors in a system

C. wrap data access calls to a systems relational database

D. marshal information between the tiers in a system

A

Question. 48 Which is a UML general-purpose mechanism for organizing elements into groups?

A. a class diagram

B. an activity

C. a package

D. a composite diagram

C

Question. 49 During Use Case Analysis, how many interaction diagrams (sequence or communication) should be drawn for each use-case?

A. enough of each type to ensure that all responsibilities of participating classes are identified and that most of the flows of events are examined

B. one for the main flow and one for each alternate flow of events in the use-case

C. one of each type for the main flow and one of each type for each alternate flow of events in the use-case

D. one of each type per use-case, with each alternate flow of events shown as an interaction occurrence

A

Question. 50 In Use Case Analysis, what is the function of boundary classes?

A. to insulate external forces from internal mechanisms and vice versa

B. to represent the screens in the user interface

C. to define the service interfaces exposed by the Business layer

D. to define entry points or roots into the core Object Data Model

A

Q. 1 Which statement is true about elements within the subsystem and public

visibility?

A. Only the subset of elements that define the subsystems API should have public visibility.

B. Only the subsystem proxy class should have public visibility.

C. No elements inside the subsystem should have public visibility.

D. Only the elements that reference external classes should have public visibility.

C

Q. 2 What are the two types of dependency that can be used from a subsystem?

(Choose two.)

A. <<uses>> dependency to a subsystem interface

B. an <<import>> dependency to a package containing used classes

C. a <<manifest>> relationship to a node in the Deployment model

D. a <<realize>> relationship to one or more collaboration occurrences

A, B

Q. 3 Which task is performed during use-case realization refinement?

A. identify participating classes

B. allocate responsibilities among classes

C. model messages between classes

D. model associated class relationships

D

Q. 4 Which statement is true about design subsystems?

A. They partially encapsulate behavior.

B. They represent an independent capability with clear interfaces.

C. They model a single implementation variant.

D. They can only contain design classes.

B

Q. 5 Given the following configuration: Package A, which contains class aClass is in

the presentation layer. Package B, which contains a class bClass and an interface bInterface is in the business layer. Package C, which contains cClass is in the data layer. Which is a poor practice?

A. aClass calls a method in bClass.

B. aClass has an attribute of type cClass.

C. aClass realizes bInterface.

D. bClass realizes bInterface.

B

Q. 6 Which process document describes design mechanisms, any mappings between design mechanisms, and the details regarding their use?

A. Software Architecture Document

B. Design Guidelines

C. Vision Document

D. Software Development Plan

B

Q. 7 In the state of a state machine, a behavior can be defined \_\_\_\_\_.

A. before reaching a state

B. upon reaching a state

C. upon leaving a state

D. inside a state

B

Q. 8 What is a gate?

A. a parameter that represents a message that crosses the boundary of an interaction or interaction fragment

B. a defined protocol for accessing the internals of a subsystem

C. a decision point in a state machine that has more than two alternatives

D. a set of checkpoints each subsystem design must satisfy before it can be assigned for implementation

A

Q. 9 When identifying design elements, a simple analysis class will map to

a(n)\_\_\_\_\_.

A. active class

B. interface

C. design class

D. subsystem

C

Q. 10 In which OOAD activity is the distribution mechanism identified?

A. Identify Design Elements

B. Identify Design Mechanisms

C. Class Design

D. Architectural Analysis

B

Q. 12 Identify Design Elements is part of which workflow detail?

A. Define a Candidate Architecture

B. Design Components

C. Perform Architectural

D. Refine the Architecture

D

Q. 14 What is the relationship between operation and method?

A. The terms are synonymous.

B. An operation describes how a method is implemented.

C. A method describes how an operation is implemented.

D. There is no relationship.

C

Q. 15 Why would you use subsystem interfaces rather than subsystem instances on sequence diagrams?

A. to make it easier to model subsystems during Subsystem Design

B. to make use-case realizations easier to change

C. to ease sequence diagram maintenance when message signatures change

D. to reduce the number of classes needed to implement the subsystem

B

Q. 16 Which is an input artifact to the Identify Design Elements activity?

A. Deployment Model

B. Implementation Model

C. Reference Architecture

D. Software Architecture Document

D

Q. 17 What is an important consideration when allocating processes to nodes?

A. minimizing network traffic

B. minimizing power consumption

C. utilizing all available nodes

D. physical distance between nodes

A

Q. 18 Which type of mechanism is a connector on a deployment diagram?

A. backup

B. communication

C. transaction

D. computation

B

Q. 19 A design mechanism \_\_\_\_\_.

A. captures the key aspects of a solution in a way that is implementation-independent

B. specifies the exact implementation of the mechanism and is bound to a certain technology, implementation language, or vendor

C. is the same as a design pattern

D. assumes some details of the implementation environment, but is not tied to a specific implementation

D

Q. 20 When identifying interfaces during the Identify Design Elements activity,

which statement is true?

A. Classes should not realize an interface.

B. Each subsystem realizes only one interface.

C. Interfaces should be identified before subsystems are created.

D. Interfaces should be packaged separately from the elements that realize them.

D

Q. 21 Additional subsystems can be discovered during Use Case Design by noting

\_\_\_\_\_.

A. common subflows between objects on several sequence diagrams

B. similar objects on several sequence diagrams

C. a consistent series of state transitions for multiple classes involved in a use-case realization

D. the same design classes involved in more than one use-case realization

A

Q. 22 Which activities are performed during Use Case Design?

A. converting analysis classes into design classes and design subsystems

B. describing persistence-related behavior

C. describing object interactions that implement interface operations

D. simplifying sequence diagrams using design classes

B

Q. 23 On a sequence diagram, what is used to represent a specific subsystem?

A. an interface that the subsystem realizes

B. a subsystem proxy

C. a subsystem component

D. a subsystem class

C

Q. 24 Which UML elements are used to describe the physical architecture of a

system?

A. classes and relationships

B. objects and messages

C. subsystems and dependencies

D. nodes and connectors

D

Q. 25 Which artifact is used to describe use-case realizations?

A. textual use-case descriptions

B. communication diagrams

C. state charts

D. activity diagrams

B

Q. 26 What defines a subsystems responsibilities?

A. its internal class behavior

B. the operations of the interfaces it implements

C. the use-case realizations in which the subsystem appears

D. the operations on a class contained within the subsystem

B

Q. 27 Which is a design mechanism?

A. Persistency

B. ObjectStore Object-oriented Database

C. Distribution

D. Remote Method Invocation

D

Q. 28 To begin identifying design mechanisms, you start by categorizing analysis mechanisms. What are three steps in the process of Categorizing Analysis Mechanisms? (Choose three.)

A. identify characteristic profiles for each analysis mechanism

B. identify the clients of each analysis mechanism

C. assign a vendor implementation to each analysis mechanism

D. group clients according to their use of characteristic profiles

A, B, D

Q. 29 In Subsystem Design, what happens in the step, Distribute Subsystem Responsibilities?

A. The subsystems responsibilities are allocated to its internal design elements.

B. Each subsystem is checked to ensure it has a consistent set of responsibilities and inconsistent responsibilities are reassigned to other subsystems.

C. Libraries and external APIs are identified to realize the subsystem behavior.

D. Distribution mechanisms are detailed for exposing subsystem interfaces.

A

Q. 30 Which entity has a well-defined boundary and identity that encapsulates state

and behavior?

A. class

B. object

C. component

D. package

B

Q. 31 What is the purpose of the Identify Design Mechanisms activity?

A. to refine the analysis mechanisms and specify the exact implementation of the mechanism

B. to provide a conceptual set of services that is used by analysis objects

C. to refine analysis mechanisms into design mechanisms, based on the constraints imposed by the implementation environment

D. to define design placeholders in the architecture so the architecting effort remains focused and is less likely to become sidetracked

C

Q. 32 In a dependency, through what reference does the client class gain visibility to the supplier? (Choose three)

A. local reference

B. parameter reference

C. global reference

D. field reference

A, B, C

Q. 33 In which Analysis and Design activity are subsystems mapped to analysis classes?

A. Architectural Analysis

B. Identify Design Elements

C. Identify Subsystems

D. Incorporate Existing Design Elements

B

Q. 34 Which design element is used to represent a concurrent object?

A. active class

B. capsule

C. design class

D. event

A

Q. 35 The Describe Distribution activity is where the processes defined in the Describe the Run-time Architecture activity are allocated to \_\_\_\_\_.

A. physical nodes

B. components

C. classes

D. activities

A

Q. 36 During Subsystem Design, how many interaction diagrams (sequence or communication) should be created?

A. at least one interaction diagram per interface operation

B. one interaction diagram per interface realization

C. at least one interaction diagram for each use of an external interface

D. one interaction diagram for each realizing class

A

Q. 37 A directed graph of nodes connected by transitions is a \_\_\_\_\_ diagram.

A. communication

B. sequence

C. component

D. state machine

D

Q. 39 Use Case Design is part of which workflow detail?

A. Design Use Cases

B. Analyze Behavior

C. Design Components

D. Design Classes and Subsystems

C

Q. 40 When does an analysis class map directly to a design class?

A. when the analysis class uses the <entity> stereotype

B. when the analysis class represents a single logical abstraction

C. when the modeling tool supports transformation of Analysis Models to Design

D. when an analyst has strong design skills

B

Q. 41 What is a design subsystems primary purpose?

A. provides configuration management and model organization

B. encapsulates behavior

C. packages similar design classes together

D. represents external systems

B

Q. 42 What is the purpose of subsystem design?

A. finalizes the details of each interface implemented by the subsystems in an application

B. breaks the system up into subsystems in order to allocate subsystems to development teams

C. defines the behaviors specified in the subsystem's interfaces in terms of collaborations of contained design elements

D. defines on which tier each subsystem will be implemented and the communication mechanisms used between them

C

Q. 44 Defining the network configuration is the \_\_\_\_\_ step of the Describe the Distribution activity.

A. final

B. first

C. second

D. fifth

B

Q. 46 Which statement is true about packages and subsystems?

A. A package cannot contain a subsystem.

B. A package provides behavior.

C. A subsystem provides behavior.

D. You use a package when you need to encapsulate behavior.

C

Q. 47 How many physical nodes should be identified in order to perform the

Describe Distribution activity?

A. zero nodes only

B. one node only

C. zero nodes or one node

D. more than one node

D

Q. 48 Supplemental sequence diagram documentation, in the form of notes and scripts, is commonly used for \_\_\_\_\_. (Choose three.)

A. describing required timing between messages

B. providing details about conditional behavior

C. specifying the attributes for objects that appear in the diagram

D. correlating extension points in the use case with specific locations in the sequence diagrams

A, B, D

Q. 49 What is used to describe the process of applying a distribution mechanism during implementation?

A. activity diagram

B. flowchart

C. UML pattern and written steps

D. use-case diagram

C

Q. 51 What does an underlined attribute indicate?

A. The attribute is read-only.

B. The attribute is derived from other attributes.

C. The attribute uniquely identifies instances.

D. The attribute is defined at the classifier level instead of the instance level.

D

Thuộc tính được '/' ở đầu là vì dụ về

A. Thiết kế tồi

B. Thuộc tính tĩnh (static)

C. Thuộc tính phát sinh (tính toán) từ cái khác

D. Đặt tên không chuẩn

C

Q. 54 With respect to persistence, what are two functions of transactions? (Choose two.)

A. ensure that a set of operations is performed either in total, or not at all

B. enable a designer to selectively define operations that will be executed with priority when there is a shortage of system resources

C. ensure that sets of objects move from one consistent state to another

D. simplify design work, so that persistence does not need to be explicitly considered during Use Case Design

E. simply design work, by providing standardized approaches for representing persistent objects in UML

A, C

Q. 55 What are three purposes of Use Case Design? (Choose three)

A. to refine use-case realizations in terms of interactions

B. to ensure the completeness of the View of Participating Classes diagrams for each use-case realization

C. to refine requirements on the operations of design classes

D. to refine requirements on the operations of design subsystems and/or their interfaces

A, C, D

Q. 56 Which is a Use Case Design output artifact?

A. analysis classes

B. design classes

C. interfaces

D. the Design Model

D

Q. 57 Which is an example of an Execution Environment?

A. Gigabit network switch

B. virtual private network

C. J2EE application server

D. handheld computer

C

Q. 58 The purpose of Unify Classes and Subsystems is to ensure \_\_\_\_\_.

A. each subsystem has a corresponding subsystem component

B. all classes are assigned to at most one subsystem

C. the responsibilities of design elements do not overlap

D. each defined interface has a cohesive and coherent API

C

Q. 59 Which is a guideline for encapsulating subsystem interactions on sequence diagrams?

A. Messages to subsystems should correspond to subsystem interface operations.

B. Messages from subsystems should correspond to operations of the subsystem component.

C. During Use Case Design, secondary sequence diagrams should be created to model the interactions within subsystems.

D. A subsystem should be represented on sequence diagrams using its subsystem component.

A

Q. 60 Which is an example of a connector?

A. SCSI Hard Disk

B. Uninterruptible Power Supply

C. HTTP protocol\*

D. JDBC class

C

Q. 62 Which is a device?

A. database server

B. web server

C. virtual private network

D. handheld computer

D

Q. 63 Which 4+1 view is the focus of the Describe Distribution activity?

A. Logical View

B. Deployment View

C. Use Case View

D. Implementation View

B

Q. 64 Which three activities are elements of Class Design? (Choose three.)

A. identify classes and relationships that support implementation of an architecture

B. identify and analyze state transitions in objects of state-controlled classes

C. identify classes that model the problem domain

D. refine relationships, operations and attributes

A, B, D

Q. 66 Artifacts are entities that \_\_\_\_\_.

A. host running software

B. are deployed onto physical nodes

C. are the result of model transformations

D. are stored in a browser cache

B

Part 3:

Q. 1 Which statement is true about elements within the subsystem and public

visibility?

A. Only the subset of elements that define the subsystems API should have public visibility.

B. Only the subsystem proxy class should have public visibility.

C. No elements inside the subsystem should have public visibility.

D. Only the elements that reference external classes should have public visibility.

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Q. 2 What are the two types of dependency that can be used from a subsystem?

(Choose two.)

A. <<uses>> dependency to a subsystem interface

B. an <<import>> dependency to a package containing used classes

C. a <<manifest>> relationship to a node in the Deployment model

D. a <<realize>> relationship to one or more collaboration occurrences

A. <<uses>> dependency to a subsystem interface

B. an <<import>> dependency to a package containing used classes

Q. 3 Which task is performed during use-case realization refinement?

A. identify participating classes

B. allocate responsibilities among classes

C. model messages between classes

D. model associated class relationships

D. model associated class relationships

Q. 4 Which statement is true about design subsystems?

A. They partially encapsulate behavior.

B. They represent an independent capability with clear interfaces.

C. They model a single implementation variant.

D. They can only contain design classes.

B. They represent an independent capability with clear interfaces.

Q. 5 Given the following configuration: Package A, which contains class aClass is in

the presentation layer. Package B, which contains a class bClass and an interface bInterface is in the business layer. Package C, which contains cClass is in the data layer. Which is a poor practice?

A. aClass calls a method in bClass.

B. aClass has an attribute of type cClass.

C. aClass realizes bInterface.

D. bClass realizes bInterface.

B. aClass has an attribute of type cClass.

Q. 6 Which process document describes design mechanisms, any mappings between

design mechanisms, and the details regarding their use?

A. Software Architecture Document

B. Design Guidelines

C. Vision Document

D. Software Development Plan

C. Vision Document

Q. 7 What is a gate?

A. a parameter that represents a message that crosses the boundary of an interaction or interaction fragment

B. a defined protocol for accessing the internals of a subsystem

C. a decision point in a state machine that has more than two alternatives

D. a set of checkpoints each subsystem design must satisfy before it can be assigned for implementation

A. a parameter that represents a message that crosses the boundary of an interaction or interaction fragment

Q. 8 When identifying design elements, a simple analysis class will map to

a(n)\_\_\_\_\_.

A. active class

B. interface

C. design class

D. subsystem

C. design class

Q. 9 In which OOAD activity is the distribution mechanism identified?

A. Identify Design Elements

B. Identify Design Mechanisms

C. Class Design

D. Architectural Analysis

B. Identify Design Mechanisms

Q. 10 Click on the exhibit button In the diagram, what is E?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

H. guard condition

Q. 11 Identify Design Elements is part of which workflow detail?

A. Define a Candidate Architecture

B. Design Components

C. Perform Architectural

D. Refine the Architecture

D. Refine the Architecture

12 Click on the exhibit button In the diagram, what is H?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

A. fork

13 What is the relationship between operation and method?

A. The terms are synonymous.

B. An operation describes how a method is implemented.

C. A method describes how an operation is implemented.

D. There is no relationship.

C. A method describes how an operation is implemented.

14 Why would you use subsystem interfaces rather than subsystem instances on

sequence diagrams?

A. to make it easier to model subsystems during Subsystem Design

B. to make use-case realizations easier to change

C. to ease sequence diagram maintenance when message signatures change

D. to reduce the number of classes needed to implement the subsystem

B. to make use-case realizations easier to change

15 Which is an input artifact to the Identify Design Elements activity?

A. Deployment Model

B. Implementation Model

C. Reference Architecture

D. Software Architecture Document

D. Software Architecture Document

16 What is an important consideration when allocating processes to nodes?

A. minimizing network traffic

B. minimizing power consumption

C. utilizing all available nodes

D. physical distance between nodes

A. minimizing network traffic

17 Which type of mechanism is a connector on a deployment diagram?

A. backup

B. communication

C. transaction

D. computation

B. communication

18 When identifying interfaces during the Identify Design Elements activity,

which statement is true?

A. Classes should not realize an interface.

B. Each subsystem realizes only one interface.

C. Interfaces should be identified before subsystems are created.

D. Interfaces should be packaged separately from the elements that realize them.

D. Interfaces should be packaged separately from the elements that realize them.

19 Additional subsystems can be discovered during Use Case Design by noting

\_\_\_\_\_.

A. common subflows between objects on several sequence diagrams

B. similar objects on several sequence diagrams

C. a consistent series of state transitions for multiple classes involved in a use-case realization

D. the same design classes involved in more than one use-case realization

A. common subflows between objects on several sequence diagrams

20 Which activities are performed during Use Case Design?

A. converting analysis classes into design classes and design subsystems

B. describing persistence-related behavior

C. describing object interactions that implement interface operations

D. simplifying sequence diagrams using design classes

B. describing persistence-related behavior

21 On a sequence diagram, what is used to represent a specific subsystem?

A. an interface that the subsystem realizes

B. a subsystem proxy

C. a subsystem component

D. a subsystem class

C. a subsystem component

22 Which UML elements are used to describe the physical architecture of a

system?

A. classes and relationships

B. objects and messages

C. subsystems and dependencies

D. nodes and connectors

D. nodes and connectors

23 Which artifact is used to describe use-case realizations?

A. textual use-case descriptions

B. communication diagrams

C. state charts

D. activity diagrams

B. communication diagrams

24 What defines a subsystems responsibilities?

A. its internal class behavior

B. the operations of the interfaces it implements

C. the use-case realizations in which the subsystem appears

D. the operations on a class contained within the subsystem

B. the operations of the interfaces it implements

25 Which is a design mechanism?

A. Persistency

B. ObjectStore Object-oriented Database

C. Distribution

D. Remote Method Invocation

D. Remote Method Invocation

26 To begin identifying design mechanisms, you start by categorizing analysis

mechanisms. What are three steps in the process of Categorizing Analysis Mechanisms? (Choose three.)

A. identify characteristic profiles for each analysis mechanism

B. identify the clients of each analysis mechanism

C. assign a vendor implementation to each analysis mechanism

D. group clients according to their use of characteristic profiles

A. identify characteristic profiles for each analysis mechanism

B. identify the clients of each analysis mechanism

D. group clients according to their use of characteristic profiles

27 In Subsystem Design, what happens in the step, Distribute Subsystem

Responsibilities?

A. The subsystems responsibilities are allocated to its internal design elements.

B. Each subsystem is checked to ensure it has a consistent set of responsibilities and inconsistent

responsibilities are reassigned to other subsystems.

C. Libraries and external APIs are identified to realize the subsystem behavior.

D. Distribution mechanisms are detailed for exposing subsystem interfaces.

A. The subsystems responsibilities are allocated to its internal design elements.

28 Which entity has a well-defined boundary and identity that encapsulates state

and behavior?

A. class

B. object

C. component

D. package

B. object

29 What is the purpose of the Identify Design Mechanisms activity?

A. to refine the analysis mechanisms and specify the exact implementation of the mechanism

B. to provide a conceptual set of services that is used by analysis objects

C. to refine analysis mechanisms into design mechanisms, based on the constraints imposed by the

implementation environment

D. to define design placeholders in the architecture so the architecting effort remains focused and is less likely

to become sidetracked

C. to refine analysis mechanisms into design mechanisms, based on the constraints imposed by the

implementation environment

30 In a dependency, through what reference does the client class gain visibility to

the supplier?

A. local reference

B. parameter reference

C. global reference

D. field reference

A. local reference

B. parameter reference

C. global reference

31 In which Analysis and Design activity are subsystems mapped to analysis

classes?

A. Architectural Analysis

B. Identify Design Elements

C. Identify Subsystems

D. Incorporate Existing Design Elements

B. Identify Design Elements

32 Which design element is used to represent a concurrent object?

A. active class

B. capsule

C. design class

D. event

A. active class

33 The Describe Distribution activity is where the processes defined in the

Describe the Run-time Architecture activity are allocated to \_\_\_\_\_.

A. physical nodes

B. components

C. classes

D. activities

A. physical nodes

34 During Subsystem Design, how many interaction diagrams (sequence or

communication) should be created?

A. at least one interaction diagram per interface operation

B. one interaction diagram per interface realization

C. at least one interaction diagram for each use of an external interface

D. one interaction diagram for each realizing class

A. at least one interaction diagram per interface operation

35 A directed graph of nodes connected by transitions is a \_\_\_\_\_ diagram.

A. communication

B. sequence

C. component

D. state machine

D. state machine

36 Click on the exhibit button

In the diagram, what is F?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

F. event

Q. 37 Use Case Design is part of which workflow detail?

A. Design Use Cases

B. Analyze Behavior

C. Design Components

D. Design Classes and Subsystems

C. Design Components

38 When does an analysis class map directly to a design class?

A. when the analysis class uses the <entity> stereotype

B. when the analysis class represents a single logical abstraction

C. when the modeling tool supports transformation of Analysis Models to Design

D. when an analyst has strong design skills

B. when the analysis class represents a single logical abstraction

39 What is the purpose of subsystem design?

A. finalizes the details of each interface implemented by the subsystems in an application

B. breaks the system up into subsystems in order to allocate subsystems to development teams

C. defines the behaviors specified in the subsystem's interfaces in terms of collaborations of contained design elements

D. defines on which tier each subsystem will be implemented and the communication mechanisms used between them

C. defines the behaviors specified in the subsystem's interfaces in terms of collaborations of contained design elements

40 Click on the exhibit button

In the diagram, what are C1 and C2?

A. forks

B. initial states

C. decisions

D. transitions

E. final states

F. events

G. states

H. guard conditions

G. states

41 Defining the network configuration is the \_\_\_\_\_ step of the Describe the

Distribution activity.

A. final

B. first

C. second

D. fifth

B. first

42 Click on the exhibit button

In the diagram, what is B?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

B. initial state

Q. 43 Which statement is true about packages and subsystems?

A. A package cannot contain a subsystem.

B. A package provides behavior.

C. A subsystem provides behavior.

D. You use a package when you need to encapsulate behavior.

C. A subsystem provides behavior.

Q. 44 How many physical nodes should be identified in order to perform the

Describe Distribution activity?

A. zero nodes only

B. one node only

C. zero nodes or one node

D. more than one node

D. more than one node

Q. 45 Supplemental sequence diagram documentation, in the form of notes and

scripts, is commonly used for \_\_\_\_\_. (Choose three.)

A. describing required timing between messages

B. providing details about conditional behavior

C. specifying the attributes for objects that appear in the diagram

D. correlating extension points in the use case with specific locations in the sequence diagrams

A. describing required timing between messages

B. providing details about conditional behavior

D. correlating extension points in the use case with specific locations in the sequence diagrams

Q. 46 What is used to describe the process of applying a distribution mechanism

during implementation?

A. activity diagram

B. flowchart

C. UML pattern and written steps

D. use-case diagram

C. UML pattern and written steps

Given information provided in the diagram, which statement is true?

A. Lion and Tiger communicate with each other.

B. Lion and Tiger communicate with Animal.

C. Animal may not have direct instances.

D. Instances of Animal communicate differently than instances of Lion or Tiger.

C. Animal may not have direct instances.

48 What does an underlined attribute indicate?

A. The attribute is read-only.

B. The attribute is derived from other attributes.

C. The attribute uniquely identifies instances.

D. The attribute is defined at the classifier level instead of the instance level.

D. The attribute is defined at the classifier level instead of the instance level.

49 Click on the exhibit button

In the diagram, the attribute CourseOffering.numberOfStudents is an example of \_\_\_\_\_.

A. a bad design

B. a static attribute

C. a derived attribute

D. non-standard naming

C. a derived attribute

In the diagram, what is A?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

E. final state

51 With respect to persistence, what are two functions of transactions? (Choose

two.)

A. ensure that a set of operations is performed either in total, or not at all

B. enable a designer to selectively define operations that will be executed with priority when there is a shortage of system resources

C. ensure that sets of objects move from one consistent state to another

D. simplify design work, so that persistence does not need to be explicitly considered during Use Case Design

E. simply design work, by providing standardized approaches for representing persistent objects in UML

A. ensure that a set of operations is performed either in total, or not at all

C. ensure that sets of objects move from one consistent state to another

52 What are three purposes of Use Case Design? (Choose three)

A. to refine use-case realizations in terms of interactions

B. to ensure the completeness of the View of Participating Classes diagrams for each use-case realization

C. to refine requirements on the operations of design classes

D. to refine requirements on the operations of design subsystems and/or their interfaces

A. to refine use-case realizations in terms of interactions

C. to refine requirements on the operations of design classes

D. to refine requirements on the operations of design subsystems and/or their interfaces

53 Which is a Use Case Design output artifact?

A. analysis classes

B. design classes

C. interfaces

D. the Design Model

D. the Design Model

54 Which is an example of an Execution Environment?

A. Gigabit network switch

B. virtual private network

C. J2EE application server

D. handheld computer

C. J2EE application server

55 The purpose of Unify Classes and Subsystems is to ensure \_\_\_\_\_.

A. each subsystem has a corresponding subsystem component

B. all classes are assigned to at most one subsystem

C. the responsibilities of design elements do not overlap

D. each defined interface has a cohesive and coherent API

C. the responsibilities of design elements do not overlap

56 Which is a guideline for encapsulating subsystem interactions on sequence

diagrams?

A. Messages to subsystems should correspond to subsystem interface operations.

B. Messages from subsystems should correspond to operations of the subsystem component.

C. During Use Case Design, secondary sequence diagrams should be created to model the interactions within subsystems.

D. A subsystem should be represented on sequence diagrams using its subsystem component.

A. Messages to subsystems should correspond to subsystem interface operations.

57 Which is an example of a connector?

A. SCSI Hard Disk

B. Uninterruptible Power Supply

C. HTTP protocol\*

D. JDBC class

C. HTTP protocol\*

58 A design mechanism \_\_\_\_\_.

A. captures the key aspects of a solution in a way that is implementation-independent

B. specifies the exact implementation of the mechanism and is bound to a certain technology, implementation language, or vendor

C. is the same as a design pattern

D. assumes some details of the implementation environment, but is not tied to a specific implementation.

D. assumes some details of the implementation environment, but is not tied to a specific implementation.

59 Click on the exhibit button

In the diagram, what is G?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

C. decision

Q. 60 Which is a device?

A. database server

B. web server

C. virtual private network

D. handheld computer

D. handheld computer

Q. 61 Which 4+1 view is the focus of the Describe Distribution activity?

A. Logical View

B. Deployment View

C. Use Case View

D. Implementation View

B. Deployment View

Q. 62 Which three activities are elements of Class Design? (Choose three.)

A. identify classes and relationships that support implementation of an architecture

B. identify and analyze state transitions in objects of state-controlled classes

C. identify classes that model the problem domain

D. refine relationships, operations and attributes

C. identify classes that model the problem domain

63 Click on the exhibit button

In the diagram, what is D?

A. fork

B. initial state

C. decision

D. transition

E. final state

F. event

G. state

H. guard condition

D. transition

64 Given the following configuration: Package A, which contains class aClass is

in the presentation layer. Package B, which contains a class bClass and an interface bInterface is in the business layer. Package C, which contains cClass is in the data layer. Which is a poor practice?

A. aClass calls a method in bClass.

B. aClass has an attribute of type cClass.

C. aClass realizes bInterface.

D. bClass realizes bInterface.

B. aClass has an attribute of type cClass.

65 Artifacts are entities that \_\_\_\_\_.

A. host running software

B. are deployed onto physical nodes

C. are the result of model transformations

D. are stored in a browser cache

B. are deployed onto physical nodes

66 What is a design subsystems primary purpose?

A. provides configuration management and model organization

B. encapsulates behavior

C. packages similar design classes together

D. represents external systems

B. encapsulates behavior

67 In the state of a state machine, a behavior can be defined \_\_\_\_\_.

A. before reaching a state

B. upon reaching a state

C. upon leaving a state

D. inside a state

B. upon reaching a state

C. upon leaving a state

D. inside a state