IBM

Exam C2140-834

Object Oriented Analysis and Design - Part2(Design)

Version: 5.0

[Total Questions: 180]

Question No : 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.

Answer: C

Question No : 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

Answer: A,B

Question No : 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

Answer: D

Question No : 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.

Answer: B

Question No : 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.

Answer: B

Question No : 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

Answer: C

Question No : 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

Answer: B,C,D

Question No : 8

What is a gate?

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

Answer: A

Question No : 9

When identifying design elements, a simple analysis class will map to a(n)_____.

A. active class
B. interface
C. design class
D. subsystem

Answer: C

Question No : 10

In which OOAD activity is the distribution mechanism identified?

A. Identify Design Elements
B. Identify Design Mechanisms
C. Class Design
D. Architectural Analysis

Answer: B

Question No : 11

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

Answer: H

Question No : 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

Answer: D

Question No : 13

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

Answer: A

Question No : 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.

Answer: C

Question No : 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

Answer: B

Question No : 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

Answer: D

Question No : 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

Answer: A

Question No : 18

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

A. backup
B. communication
C. transaction
D. computation

Answer: B

Question No : 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

Answer: D

Question No : 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.

Answer: D

Question No : 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

Answer: A

Question No : 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

Answer: B

Question No : 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

Answer: C

Question No : 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

Answer: D

Question No : 25

Which artifact is used to describe use-case realizations?

A. textual use-case descriptions
B. communication diagrams
C. state charts
D. activity diagrams

Answer: B

Question No : 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

Answer: B

Question No : 27

Which is a design mechanism?

A. Persistency
B. ObjectStore Object-oriented Database
C. Distribution
D. Remote Method Invocation

Answer: D

Question No : 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

Answer: A,B,D

Question No : 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.

Answer: A