OMG-OCSMP-MBA400 Q&As

OMG-Certified Systems Modeling Professional - Model Builder – Advanced

Pass OMG OMG-OCSMP-MBA400 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

https://www.leads4pass.com/omg-ocsmp-mba400.html

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by OMG Official Exam Center

Instant Download After Purchase
100% Money Back Guarantee
365 Days Free Update
800,000+ Satisfied Customers

QUESTION 1

Choose the correct answer.

How should stereotypes be grouped to facilitate re-use in later projects?

A. in profiles

B. in packages

C. in metamodels

D. in sub-models

Correct Answer: A

Stereotypes should be grouped in profiles to facilitate re-use in later projects. A profile is a mechanism for extending UML or SysML with additional modeling elements that are not part of the standard language. A profile defines stereotypes, which are extensions of existing metaclasses. A profile can be applied to a model to make the stereotypes available for use. Bygrouping stereotypes in profiles, they can be easily reused in different models or projects.

QUESTION 2

Choose the correct answer

A system engineer designing a smart-home system is working with three analysts using specialized computational tools to evaluate energy consumption, waste production, and reliability of the system The team is soliciting a recommendation for an approach that achieves the following

(1) Analysis models should Incorporate design details necessary for evaluation

(2) Analysis models should be easily adaptable for different types of smart-home systems

A. The system engineer should create a SysML model loi capturing the design ol different types of smart-home systems, and the analysts should set up executable templates/scripts to generate analysis models from the SysML model

B. The system engineer should create a SysML model for capturing high-level design specifications of different types of smart-home systems, which the analysts can consult for creating and maintaining analysis models in their individual tools.

C. The system engineer should create a SysML model for capturing the design of different types of smart-home systems, and the analysts should each create a SysML model representing their specific analysis. All four SysML models should then be linked together.

D. The system engineer should create a SysMI model for capturing the high level design specifications of different types of smart-home systems. This SysML model should contain a package for each of the analyses and dependency relations between the design specifications and the analysis packages

Which recommendation would be most effective from a MBSE perspective\\'?

Correct Answer: A

This recommendation would be most effective from a MBSE perspective because it allows the system engineer and the

analysts to leverage the SysML model as a source of design information and analysis input. A SysML model is a graphical and textual representation of a system and its structure, behavior, requirements, etc. By creating a SysML model for capturing the design of different types of smart-home systems, the system engineer can specify the relevant design details necessary for evaluation, such as parameters, constraints, properties, etc. The analysts can then set up executable templates/scripts to generate analysis models from the SysML model using various methods and tools. This way, the analysts can ensure that their analysis models incorporate the latest design information and are easily adaptable for different types of smart-home systems. The system engineer and the analysts can also use allocation or synchronization mechanisms to link the SysML model and the analysis models and propagate changes between them.

QUESTION 3

Choose the correct answer.

A team of designers led by a hardware systems engineer is finding it difficult to manage the design of a distributed air-conditioning system_ Each system component Is a complex assembly with multiple design models (such as MCAD. ECAD, and Spreadsheets). The system engineer wants to architect an approach that achieves the following

(1)

provides a unified view of the design of the system and Its components

(2)

provides a unified model for generating a bill-of-materials

(3)

provides sufficient semantics to propagate changes made in one design model to another

Assume that the system engineer Is allocated resources to purchase or develop the new software required for this architecture

Which approach would be most effective from a MBSE perspective?

A. import each design model into a single SysML model and then create relationships between the design models

B. import each design model into a separate SysML model, link the SysML models together, and then create relationships between the design models

C. create a SysML block structure representing (he system and its components, and then create relationships between the blocks and the design models

D. create a SysML package structure representing the system and its components, and then create relationships between the packages and the design models

E. create a SysML activity structure representing the design process of each component, and then create relationships between the activity parameters and the design models

Correct Answer: C

This approach would be most effective from a MBSE perspective because it allows the system engineer to create a unified view of the design of the system and its components using SysML blocks and relationships. A block is an extension of the UML Class metaclass that can be used to model any system component with structure and behavior. A relationship is a connection between model elements that specifies some kind of dependency or association. By creating a SysML block structure representing the system and its components, the system engineer can capture the

hierarchy, composition, classification, generalization, etc., of the system elements. By creating relationships between the blocks and the design models, such as MCAD, ECAD, or Spreadsheets, the system engineer can link the SysML model with the external models and provide traceability and consistency. The system engineer can also use the SysML model to generate a bill-ofmaterials for the system and its components, as well as to propagate changes made in one design model to another using allocation or synchronization mechanisms.

QUESTION 4

Choose the correct answer

The concerns of a group of stakeholders involved m a systems development project have been identified. What is the next project task to be earned out?

A. Define a set of viewpoints and align them with concerns

B. Define a set of viewpoints and align them with stakeholders

C. Group together similar stakeholders and assign them to viewpoints

D. Group concerns to identify stakeholders that are interested in the same viewpoint.

Correct Answer: A

The next project task to be carried out after identifying the concerns of a group of stakeholders involved in a systems development project is to define a set of viewpoints and align them with concerns. A viewpoint defines how a view should be constructed and used to address a set of stakeholder concerns. By defining and aligning viewpoints with concerns, the project can ensure that each concern is covered by at least one viewpoint, and that each viewpoint addresses one or more concerns.

QUESTION 5

Choose the correct answer

What is a common reason for extending SysML with a profile?

A. SysML requires the definition of a profile

B. A profile adds methodology- and domain-specific concepts to SysML.

C. A profile adds user-specific needs to the model in a systems engineering project

D. A profile overwrites unwanted SysML concepts and tool-vendor-specific extensions

Correct Answer: B

A profile is a mechanism for extending SysML with additional modeling elements that are not part of the standard language. A profile can add methodology- and domain-specific concepts to SysML, such as stereotypes, tagged values, constraints, etc. These concepts can be used to tailor SysML to specific engineering domains or modeling methods.

QUESTION 6

Choose the correct answer.

A project is evaluating several modeling tools which comply in vanous degrees to SysML abstract and concrete syntax The customer will allow some deviation from full compliance, as long as technical risk is minimized.

Which tool characteristics are required for this project?

A. full compliance with abstract syntax, and limited deviations from concrete syntax

B. full compliance with concrete syntax, and limited deviations from abstract syntax

C. limited deviations from abstract and concrete syntax

D. full compliance with both abstract and concrete syntax, nothing less is adequate

Correct Answer: A

This tool characteristic is required for this project because it ensures that the modeling tool follows the SysML abstract syntax, which defines the metamodel elements and their semantics. The abstract syntax is essential for ensuring consistency and interoperability between different tools and models. The concrete syntax, which defines the notation and presentation of the elements, can have some deviations as long as they do not affect the meaning or interpretation of the model. For example, a tool can use different colors or shapes for some elements without changing their semantics.

QUESTION 7

Choose the correct answer

What are some general rules to be applied at the end of requirements analysis to determine that (1) an activity diagram is self-consistent and (2) all elements on the diagram belong there\\' Select the option that gives the most general answer without including any irrelevant rules

A. Every diagram element is traceable to a requirement or use case. (2) Every input object can be traced through the diagram to an output object, butler, or data store. (3) There Is a path from the initial node to every activity final and flow final node

B. Every diagram element is traceable to a requirement, use case or undocumented user need. (2) Every input object can be traced through the diagram to (a) an output object, buffer, data store or the object is consumed without producing any other object (3) .There is a path from the initial node to every activity final and How final node.(b) an action that clearly states how

C. Every diagram element is traceable to a requirement or use case (2) Every Input object can be traced through the diagram to (a) an output object, buffer, or data store how the object is consumed without producing any other object fv (3) There Is a path from the initial node to every activity final and flow final nodeor (b) an action that clearly states

D. Every diagram element is traceable to a requirement or use case (2) Every input object can be traced through the diagram to (a) an output object, buffer or data store how the object is consumed without producing any other object. (3) There is a path from the initial node to every activity final and flow final node (4) The diagram has no cycles of control flows or (b) an action that clearly states

Correct Answer: C

Option C gives the most general answer without including any irrelevant rules. Option A is incorrect because it does not account for the possibility of an input object being consumed without producing any other object. Option B is incorrect because it introduces the concept of undocumented user need, which is not part of the requirements analysis. Option D

is incorrect because it adds an unnecessary rule about cycles of control flows, which are not prohibited in activity diagrams. References: OMG-Certified Systems Modeling Professional - Model Builder ?Advanced (OCUP2-ADV) Examination Guide Version 1.0, Section 4.2.1.3

QUESTION 8

Choose the correct answer

A stereotype is defined in a profile This stereotype has two properties whose types were already defined in the model

What must be done to reuse their type definitions?

A. The package defining the types needs to apply the profile.

B. The package defining the types needs to import the profile

C. The profile needs to apply the package where these types are defined.

D. The profile needs to import the package where these types are defined.

Correct Answer: D

To reuse the type definitions of the properties of a stereotype, the profile needs to import the package where these types are defined. An import relationship indicates that the elements in one package can be referenced by another package without a qualified name. By importing the package with the types, the profile can use them as attributes of the stereotype without having to redefine them.

QUESTION 9

Choose the correct answer

What information is required to define a viewpoint in SysML in addition to stakeholders?

A. affects, methods, process purpose

B. concerns, languages, methods, purpose

C. concerns languages, tools, purpose

D. methods, languages, rationale, responsibilities

Correct Answer: B

The information that is required to define a viewpoint in SysML in addition to stakeholders is concerns, languages, methods, and purpose. Concerns are aspects of interest about a system that are addressed by a viewpoint. Languages are notations or modeling techniques used by a viewpoint to represent a view. Methods are processes or guidelines for constructing or interpreting views that conform to a viewpoint. Purpose is an explanation of why and how a viewpoint addresses stakeholder concerns

QUESTION 10

Choose the correct answer

Which SysML diagram type is a modification of the UML Class diagram?

A. Parametric Diagram

B. Internal Block Diagram

C. Package Diagram

D. Block Definition Diagram

Correct Answer: D

The SysML diagram type that is a modification of the UML Class diagram is the Block Definition Diagram (BDD). A BDD shows the definition of blocks in terms of their features, such as properties, operations, ports, etc. It is similar to a UML Class diagram, but it adds some features specific to SysML, such as value types, units, flow properties, etc. A block is an extension of the UML Class metaclass that can be used to model any system component with structure and behavior.

QUESTION 11

Choose the correct answer

What are views and viewpoints used to show?

A. the system under development by the stakeholders

B. the modeling responsibilities of different stakeholders

C. the aspects of a model that relate to different stakeholders

D. the aspects of a model important to users as stakeholders

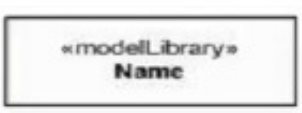
Correct Answer: C

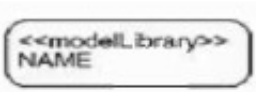
Views and viewpoints are used to show the aspects of a model that relate to different stakeholders. A view is a representation of a subset of a model that addresses a set of stakeholder concerns. A viewpoint is a specification of a perspective on a model that defines how a view should be constructed and used. By using views and viewpoints, different aspects of a model can be presented in a way that is relevant and understandable for different stakeholders.

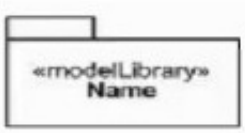
QUESTION 12

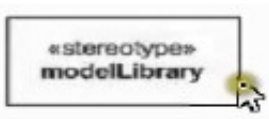
Choose the correct answer.

Which element would be used to depict a model library on a diagram?

A.


B.


C.


D.


A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: C

The element that would be used to depict a model library on a diagram is a package with the stereotype applied to it. This stereotype indicates that the package contains reusable model elements that can be imported into other models. Option C shows a package with this stereotype

QUESTION 13

Choose the correct answer

The director of field support for a company just found out that one of the company\\'s systems engineers is a Model Based Systems Engineering expert, and wants to discuss how MBSE might impact how the company\\'s products are supported In the field What is the most important aspect of system development methodologies the engineer Is likely to discuss?

A. how field support operations can be modeled using MBSE methods

B. how software design patterns can be used to suggest Pre Planned Product Improvement (P3I) opportunities

C. how the system model can be used to facilitate change proposals, support plans, and training in the operational environment

D. how operational evaluation (OPEVAL) plans can be developed and cross-checked In a system modeling environment, using DoDAF operational views

Correct Answer: C

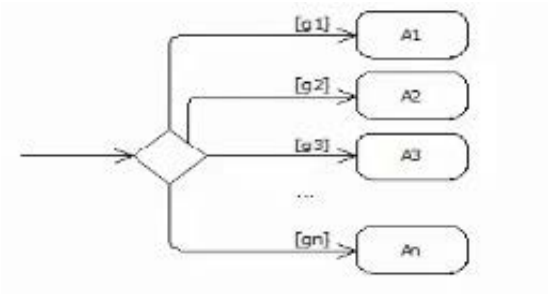
The most important aspect of system development methodologies that the engineer is likely to discuss with the director of field support is how the system model can be used to facilitate change proposals, support plans, and training in the

operational environment. The system model can provide a consistent and comprehensive view of the system\\'s structure, behavior and performance throughout its lifecycle, and can help identify and evaluate potential changes, improvements or issues in the field. The system model can also help document and communicate the support requirements, procedures and resources for the system\\'s operation and maintenance. The system model can also help design and deliver effective training programs for the system\\'s users and operators. How field support operations can be modeled using MBSE methods, how software design patterns can be used to suggest Pre Planned Product Improvement (P3I) opportunities, and how operational evaluation (OPEVAL) plans can be developed and cross-checked in a system modeling environment are less important aspects of system development methodologies that may not be relevant or applicable to the director of field support\\'s concerns. References: OMG-Certified Systems Modeling Professional - Model Builder ?Advanced (OCUP2-ADV) Examination Guide Version 1.0, Section 4.5

QUESTION 14

Choose the correct answer.

Given the following diagram fragment:



Which criterion indicates that a decision node construct such as this is well-formed?

A. No activity Ai will negate the corresponding guard [gi]

B. Taken together, the guards cover all possibilities and are mutually exclusive.

C. Each guard legal can be evaluated without changing the state of any item referenced by the corresponding activity or action Ai

D. The guards are understandable by stakeholders in the development effort.

Correct Answer: B

A decision node is a construct in SysML that represents a branching point in an activity diagram where alternative paths are chosen based on some conditions. The guards are expressions that specify the conditions for each outgoing edge from the decision node. A criterion that indicates that a decision node construct is well-formed is that the guards cover all possibilities and are mutually exclusive, meaning that for any input value, exactly one guard evaluates to true and all others evaluate to false. This ensures that there is no ambiguity or conflict in choosing the next path in the activity.

QUESTION 15

Choose the correct answer

A bank manager and his core team want to consolidate internal processes, detect conflicts among processes, and improve customer experience. The core team includes the lead person from each of the process areas (such as transactions,

customer management, and marketing). The manager wants to architect the overall system processes based on the following.

(1)

Relationships among the internal processes should be clearly identifiable and managed.

(2)

The core team members should be able to improve their processes simultaneously.

(3)

The architecture should aid visualization and analytics

Which model organization approach would be most efficient?

A. create a SysML model for each of the core processes and for each relationship between processes

B. create a SysML model that contains only one diagram showing all the core processes and their relationships

C. create a SysML model for each of the core processes, and manage relationships between processes in a spreadsheet

D. create a SysML model that contains a package for each of the core processes, and a package for the overall consolidated process and related relationships

E. create a SysML model that contains a package for each of the core processes, a package for each of the relationships between processes, and a package for the overall consolidated process

Correct Answer: E

This model organization approach would be most efficient because it allows the bank manager and his core team to modularize and structure their system processes using SysML packages. A package is a grouping mechanism that can contain any kind of model element, such as diagrams, blocks, activities, etc. By creating a package for each of the core processes, the team members can work on their own processes independently and concurrently. By creating a package for each of the relationships between processes, the team can identify and manage the dependencies and interactions among the processes. By creating a package for the overall consolidated process, the team can have a holistic view of the system and perform visualization and analytics using SysML diagrams and parametrics.

OMG-OCSMP-MBA400 VCE Dumps | OMG-OCSMP-MBA400 Practice Test | OMG-OCSMP-MBA400 Exam Questions