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OMG

OMG-OCSMP-MBA400

OMG-Certified Systems Modeling Professional – Model Builder - Advanced Exam

QUESTION: 1
Choose the correct answer.
When defining a stereotype, a modeler may wish to put some constraints on the stereotype, its properties, or its relationships.
What is the most suitable language to accomplish this?

A. DSL
B. OCL
C. VSL
D. XMI
E. XML

Answer(s): B

Explanation:
OCL stands for Object Constraint Language, which is a standard language for expressing constraints on UML and SysML models. Constraints are used to specify additional rules or conditions that are not directly captured by the modeling elements or their relationships. OCL can be used to define constraints on stereotypes, their properties, or their relationships in a profile.
Reference:
https://www.omg.org/ocsmp/ocsmp-adv-exam.htm https://www.omg.org/spec/OCL/About-OCL/

QUESTION: 2
Choose the correct answer
What is the key distinction between SysML modeling and MOF modeling?

A. MOF models are used for domain-independent modeling SysML models are used for domain- specific modeling.
B. MOF models are intended to be models of modeling constructs SysML models represent real world entities and processes.
C. MOF models are intended to be strictly models of abstract entities SysML models represent real world entities and processes
D. They both have the same purpose except that MOF modeling is intended for specialized and advanced usage by systems architects

Answer(s): B

Explanation:
MOF stands for Meta-Object Facility, which is a standard for defining metamodels. Metamodels are models of modeling constructs, such as classes, attributes, associations, etc. SysML stands for Systems Modeling Language, which is a standard for modeling complex systems using diagrams and textual notations. SysML models represent real world entities and processes, such as components, behaviors, requirements, etc. The key distinction between SysML modeling and MOF modeling is that SysML models are instances of a metamodel defined by MOF.
Reference:
https://www.omg.org/ocsmp/ocsmp-adv-exam.htm https://www.omg.org/mof/
https://www.omg.org/sysml/

QUESTION: 3
Choose the correct answer
What happens to the elements of a model when a profile is applied to the model?

A. The stereotypes defined in the profile are applied to the model's metamodel elements
B. The stereotypes defined in the profile are available to be applied to any element in the model.
C. The stereotypes defined in the profile may be applied to elements sharing compatible metaclasses
D. The stereotypes defined in the profile ate automatically applied lo the elements sharing compatible metaclasses

Answer(s): C

Explanation:
A profile is a mechanism for extending the UML or SysML metamodel with domain-specific concepts. A profile defines stereotypes, which are extensions of existing metaclasses. A metaclass is a modeling construct that defines the properties and behavior of a set of model elements. For example, the metaclass Class defines the properties and behavior of all classes in a model.
When a profile is applied to a model, the stereotypes defined in the profile may be applied to elements sharing compatible metaclasses. For example, if a profile defines a stereotype <<device>> as an extension of the metaclass Class, then the stereotype <<device>> may be applied to any class in the model.
Reference:
https://www.omg.org/ocsmp/ocsmp-adv-exam.htm https://www.omg.org/spec/UML/About-UML/
https://www.omg.org/spec/SysML/About-SysML/

QUESTION: 4
Choose the correct answer
A senior engineer has been assigned to set up a SysML model for the development of a medical device. Many stakeholders are involved, ranging from the development team to management, quality assurance, and regulatory experts. All must use the model Which choice defines a set of common tasks that will prepare the model for the stakeholders?

A. 1) Define and apply appropriate profiles
2) Create a package structure that covers the relevant aspects
3) Set up a modeling center of excellence who builds the model for the stakeholders.
B.Define and apply appropriate profiles
2) Define viewpoints for the different stakeholder concerns and set up conformant views
3) Create a package structure that covers the relevant aspects
C. 1) Define one common set of SysML elements for all stakeholders.
2) Create a package structure that covers the relevant aspects
3) Set up model access rights (readVwrite/delete) for the different stakeholder groups
D. 1) Define viewpoints for the different stakeholder concerns and set up conformant views
2) Set up model access rights (read/write/delete) for the different stakeholder groups
3) Nominate a model builder for each stakeholder group.

Answer(s): B