

ArchiMate 3 Part 1 Examination

The Open Group OGA-031

Version Demo

Total Demo Questions: 11

Total Premium Questions: 115

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QUESTION NO: 1

Consider the metamodel fragment shown. What is the element marked X?

- A. Function
- B. Service
- C. Interface
- D. Event

ANSWER: D

Explanation:

Event is the correct element for X. In the ArchiMate language, an event represents a state change that is relevant to the architecture and can influence behavior. It is used to model a discrete occurrence, such as receiving a request, reaching a date or time, detecting a condition, or completing another unit of behavior. In the metamodel fragment, X is positioned as a specialization of an internal behavior element; an event fits this role because it denotes an occurrence within the architecture that can trigger, be triggered by, or otherwise affect behavior.

Events are deliberately distinct from behavior that performs work. Rather than describing the sequence of activities or the stable grouping of activities, an event captures the occurrence that changes the state of affairs and may initiate subsequent behavior. This makes it appropriate for expressing triggers and significant lifecycle points in an ArchiMate model. The ArchiMate Specification defines an event as a state change and describes its relationships to other behavior elements, including triggering. See the Open Group's [ArchiMate language structure and metamodel](#) and its [Business Layer behavior-element definitions](#).

QUESTION NO: 2

In the Application Layer metamodel, what relationship type is defined from an application service to a data object?

- A. Aggregation
- B. Composition
- C. Realization
- D. Access

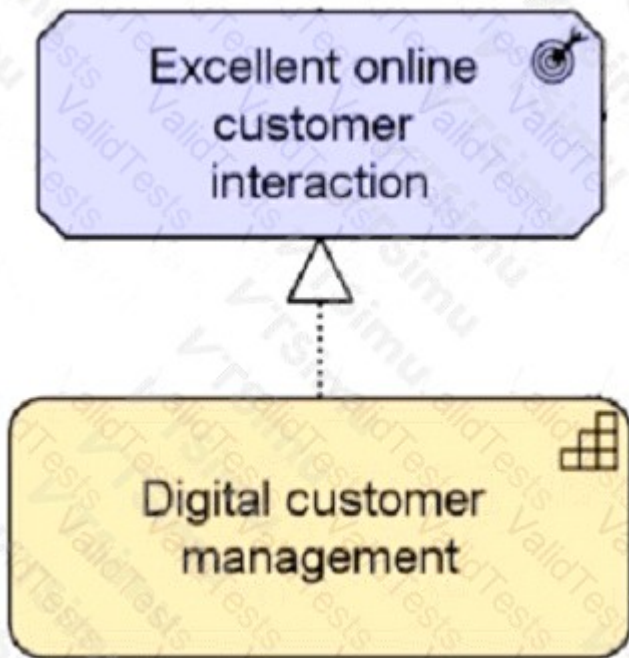
ANSWER: D

Explanation:

Access is correct because an application service is an active-structure behavior element that exposes application functionality, while a data object is a passive-structure element representing information suitable for automated processing. In the ArchiMate Application Layer metamodel, application behavior can access data objects in order to read, write, create, modify, or otherwise use the information needed to provide the service. The Access relationship is specifically intended to show this dependency between a behavior element and a passive structure element. Its optional access-mode annotation can further clarify whether the application service reads, writes, or both reads and writes the data object. For example, a "Customer Management Service" may access a "Customer Data" object while delivering its functionality. This expresses that the service uses or manipulates the data, without implying ownership, structural containment, or implementation of the data object. The ArchiMate standard defines the Application Layer's data object as the passive element used by application components and application behavior, and identifies Access as the relationship for modeling such usage. See The Open Group's [ArchiMate Application Layer](#) and the [ArchiMate relationships](#) documentation.

QUESTION NO: 3

Consider the following diagram showing a small part of ArchiSurance's Digital Customer Intimacy strategy



Which of the following describes this diagram?

- A. The Digital customer management capability achieves the goal of Excellent online customer interaction.
- B. The Digital customer management capability realizes the outcome Excellent online customer interaction.
- C. The Digital customer management outcome is influenced by the requirement for Excellent online customer interaction.
- D. The Digital customer management strategy relates to the principle of Excellent online customer interaction

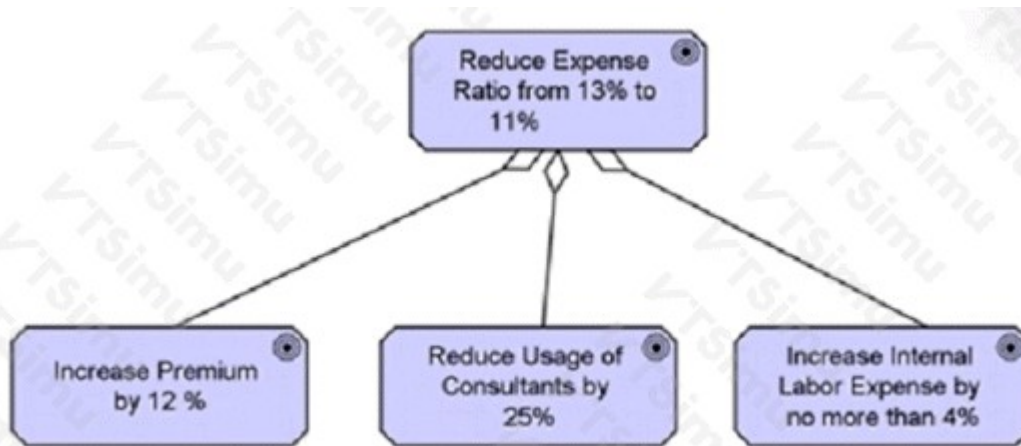
ANSWER: B

Explanation:

The statement “The Digital customer management capability realizes the outcome Excellent online customer interaction.” correctly describes the model. In ArchiMate’s Strategy Layer, a capability is an ability that an organization, person, or system possesses. It represents what the enterprise is able to do, independently of the particular resources or processes used to perform it. An outcome is an end result that has been achieved, such as the intended result of strategic change or operation. The diagram connects the capability to the outcome with a realization relationship. A realization relationship expresses that one element plays a critical role in creating, achieving, sustaining, or operating another, more abstract element. Therefore, the Digital customer management capability is modeled as realizing the Excellent online customer interaction outcome: the organization’s ability to manage customers digitally contributes directly to achieving that stated result. This use also aligns with the standard ArchiMate motivation-and-strategy modeling approach, where capabilities are used to represent abilities needed to deliver desired outcomes. See the [ArchiMate Specification, Strategy Layer](#) and the [ArchiMate Specification, Relationships](#).

QUESTION NO: 4

What is the best description of the diagram?



- A. The goal 'Reduce Expense Ratio from 13% to 11%' must be achieved before any of the other three goals is achieved-
- B. The goal 'Reduce Expense Ratio from 13% to 11%' will be achieved if at least one of the other three goals is achieved
- C. The goal 'Reduce Expense Ratio from 13% to 11%' is similar to the three other goals.
- D. The goal 'Reduce Expense Ratio from 13% to 11%' is decomposed into three other goals.

ANSWER: D

Explanation:

The goal 'Reduce Expense Ratio from 13% to 11%' is decomposed into three other goals. In ArchiMate, a Goal is a motivation element that represents an end state that a stakeholder intends to achieve. The diagram uses an aggregation relationship from the higher-level goal to the three lower-level goal elements. Aggregation denotes a whole-part relationship: the higher-level goal is composed of the displayed constituent goals. This expresses a goal decomposition structure, in which the more detailed goals collectively define or structure the overarching outcome of reducing the expense ratio. It does not, by itself, state an execution sequence, a mandatory order of achievement, or a quantified logical condition such as “at least one” constituent being sufficient. Those meanings would require other relationship types, constraints, or explicit textual qualifications. The ArchiMate specification defines aggregation as indicating that an element consists of a number of other elements, which is precisely the intended meaning of the graphical notation in this diagram. The labels identify all of the connected elements as goals, so the decomposition is entirely within the Motivation layer and represents a refinement of the intended business outcome. See the [ArchiMate Specification, Motivation Elements](#) for the definition of Goal and the [ArchiMate Specification, Relationships](#) for aggregation semantics.

QUESTION NO: 5

In the Business Layer metamodel, what type of element is assigned to a Business Service?

- A. Business Process
- B. Business Actor
- C. Business Interface
- D. Business Event

ANSWER: C

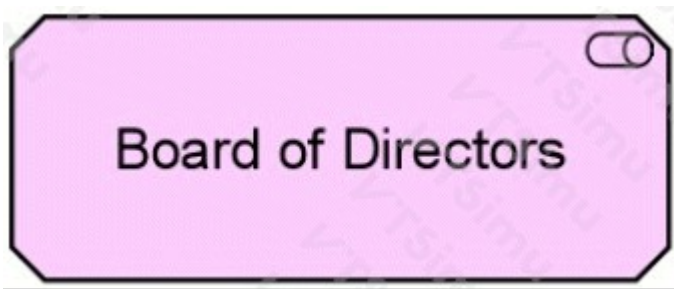
Explanation:

Business Interface is correct because it is an active-structure element that represents a point of access through which business services are made available to their environment. In the Business Layer metamodel, an Assignment relationship may connect a Business Interface to a Business Service. This expresses that the interface is responsible for providing, or exposing access to, that service. The interface therefore defines the externally visible access point, while the Business Service represents the externally observable behavior delivered to a consumer.

This distinction is important when modeling business architecture. A service states what value-bearing behavior is offered, whereas a business interface identifies how a consumer reaches that offered behavior. For example, a customer-support desk can be modeled as a Business Interface assigned to a customer-support service: the desk is the access point and the service is the behavior available through it. The ArchiMate specification explicitly defines a Business Interface as a point of access where one or more business services are exposed, and its Business Layer relationship notation permits this responsibility to be represented using Assignment. See the Open Group's [ArchiMate Business Layer chapter](#) and the [ArchiMate Specification](#).

QUESTION NO: 6

Consider the following symbol, which represents information about a transformation project at ArchiSurance involving systems and business processes:



Which of the following statements correctly expresses the meaning of the symbol?

- A. The Board of Directors will use the transformed systems
- B. The Board of Directors has a business role in the project
- C. The transformed systems will store information of interest to the Board of Directors
- D. The Board of Directors has concerns about the project

ANSWER: D

Explanation:

The Board of Directors has concerns about the project. In ArchiMate's Motivation Layer, a Stakeholder represents an individual, team, or organization with interests in the architecture or its outcomes. A Concern represents an interest that is relevant to one or more stakeholders and can relate to matters such as desired business outcomes, risks, governance, compliance, or the impact of change. The symbol expresses the relationship between the Board of Directors, modeled as a stakeholder, and the transformation project, modeled as a concern. It therefore communicates that the Board has an interest in, and is concerned with, the project and its results. This is appropriate for a transformation initiative involving changes to systems and business processes, since senior governance bodies commonly have concerns regarding the direction, effects, and successful delivery of such change. ArchiMate uses these motivation concepts to make stakeholder interests explicit, allowing requirements, goals, principles, and assessments to be traced back to the parties whose concerns they address. The Open Group's ArchiMate specification describes stakeholders and concerns in its Motivation Layer concepts: [The ArchiMate Language 3.2 Specification, Chapter 3](#). Additional ArchiMate standard information is available from [The Open Group ArchiMate overview](#).

QUESTION NO: 7

What physical element is used to represent tangible matter or energy?

- A. Material
- B. Equipment
- C. Supplies
- D. Distribution node

ANSWER: A

Explanation:

Material is the ArchiMate Physical-layer passive-structure element used to represent tangible physical matter or energy. It captures things such as raw materials, manufactured substances, water, fuel, or electricity when these are relevant to the architecture. Material may be used, transformed, transported, stored, or produced by physical behavior and physical active-structure elements. For example, a production facility can process raw material into a finished product, or a power-generation process can produce electrical energy represented as material. This concept lets an architecture model connect physical operations and resources to the enterprise's products, services, processes, and value streams without treating matter or energy merely as abstract information. The ArchiMate standard defines Material specifically as "tangible physical matter or energy," making it the precise element requested by the question. See The Open Group's [ArchiMate Physical Layer](#) documentation and the [ArchiMate Specification](#).

QUESTION NO: 8

What are the types of elements defined in the top-level language structure of the ArchiMate concepts?

- A. Application, Business, Strategy, Technology
- B. Active, Behavior, Passive
- C. Behavior, Composite, Motivation, Structure
- D. Abstract, Core, Composite

ANSWER: C

Explanation:

Behavior, Composite, Motivation, Structure is correct. The ArchiMate metamodel organizes its concepts at the highest level into these four element categories. Structure elements describe the relatively static aspects of an architecture: the entities that can perform behavior or be acted upon. Behavior elements represent activities, processes, functions, interactions, events, and other dynamic aspects performed by structural entities. Motivation elements capture the reasons, drivers, goals, outcomes, requirements, principles, and constraints that guide or influence the architecture. Composite elements provide grouping and junction constructs, enabling architects to aggregate concepts or express logical composition.

This top-level categorization is intentionally independent of the ArchiMate layers and aspects. For example, active structure, passive structure, and behavior are important distinctions within the core language, while business, application, technology, physical, strategy, implementation and migration, and motivation are layers or domains used to organize viewpoints and concepts. The requested classification is the language's broad metamodel classification of element types, which is why it includes the four categories listed. The ArchiMate Specification describes this language structure and the definitions of these element categories in its language-structure chapter. See [The Open Group ArchiMate publications](#) and [The Open Group ArchiMate overview](#).

QUESTION NO: 9

What relationship is allowed from a technology function to an application function?

- A. Assignment
- B. Aggregation
- C. Influence
- D. Realization

ANSWER: D

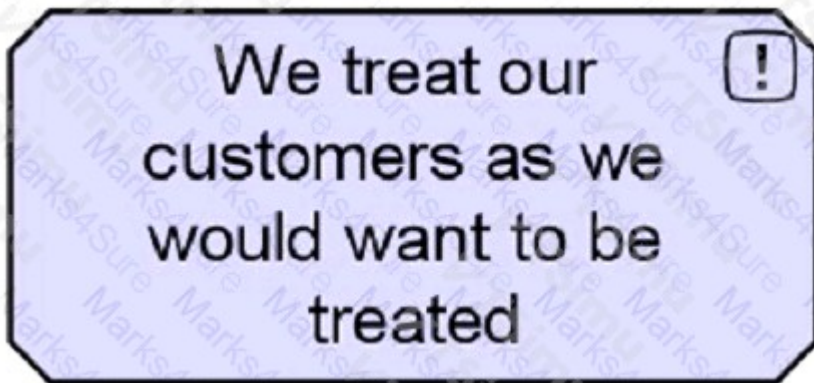
Explanation:

Realization is the allowed relationship because it expresses that a more concrete element implements, embodies, or makes available the behavior specified by a more abstract element. A technology function is behavior performed in the Technology Layer, while an application function is behavior in the Application Layer. When a technology-level behavior provides the concrete implementation of an application-level behavior, the technology function realizes the application function. This follows ArchiMate's layered abstraction: lower-layer elements can realize corresponding elements at a higher layer, showing how the higher-layer capability is implemented by more concrete architecture elements.

The ArchiMate language defines realization as a relationship from an element that provides the concrete implementation to an element representing what is realized. It is applicable between behavior elements, and the direction from the technology function to the application function correctly reflects the implementation relationship. This relationship is useful when modeling traceability from application behavior to the underlying technology behavior that enables it. See the ArchiMate specification's definition of the realization relationship in [The Generic Metamodel](#) and its treatment of layered structure in [Language Structure](#).

QUESTION NO: 10

Consider the following symbol, which represents information about a transformation project.



What concept does this symbol represent?

- A. A principle
- B. A constraint
- C. A goal
- D. A requirement

ANSWER: A

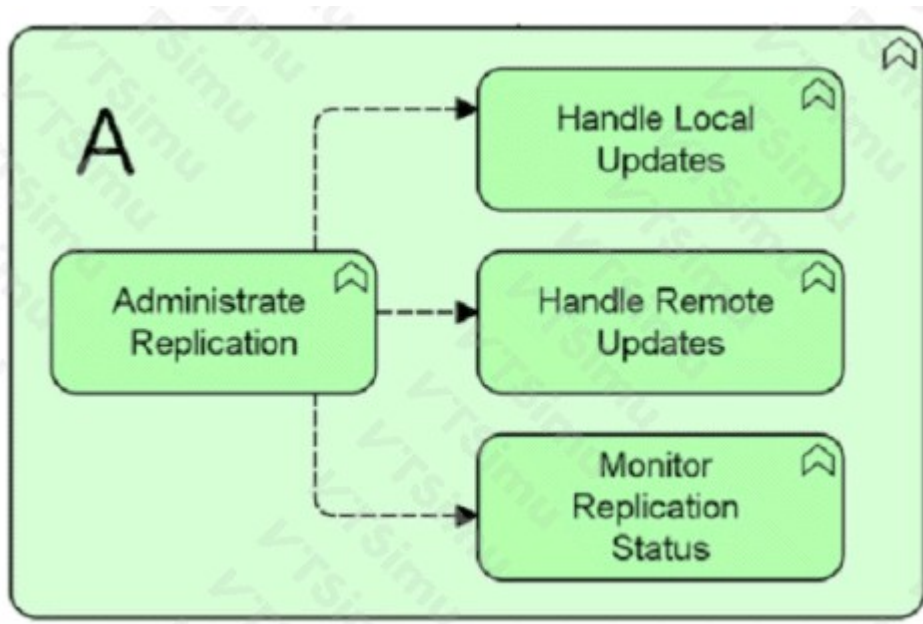
Explanation:

The symbol represents **A principle**. In the ArchiMate Motivation Element metamodel, a principle is a normative statement that expresses a fundamental property or value that applies to systems within a defined context. Principles guide and constrain architecture and design decisions at a high level, making them especially relevant to transformation initiatives where consistent direction is needed across multiple change activities, stakeholders, and solution components. The ArchiMate notation assigns a distinct visual form to the principle element so that it can be distinguished from other motivational concepts when documenting the rationale and guidance for an enterprise transformation.

A principle does not merely state a desired end state; it establishes an enduring rule or guideline that informs how goals, requirements, and architecture work should be interpreted and realized. For example, a transformation project may use principles such as "data is shared" or "security by design" to direct subsequent planning and implementation decisions. This use aligns with the ArchiMate specification's definition and notation for motivation elements. See the [ArchiMate 3.2 Specification](#) and The Open Group's [ArchiMate Forum](#).

QUESTION NO: 11

Consider the following diagram:



What correctly describes this diagram?

- A. Four technology functions realize technology function A. The first function Administrate Replication triggers the other three functions in parallel.
- B. Technology process A aggregates four technology services. The Administrate Replication service is broken down into three other services.
- C. Technology function A is composed of four technology processes. The technology process Administrate Replication reads information from the three other processes.
- D. Technology function A is composed of four technology functions. Information flows from Administrate Replication to the other functions.

ANSWER: D

Explanation:

Technology function A is composed of four technology functions. Information flows from Administrate Replication to the other functions. This follows the ArchiMate Technology Layer notation and relationship semantics. A Technology Function represents a grouping of technology-layer behavior that can be performed by a node. The enclosing function is connected to its four constituent functions by composition relationships, shown using a solid line with a filled diamond at the composite, or whole, end. This means the four named functions form parts of Technology Function A rather than merely being associated with it.

The dashed relationships leaving Administrate Replication are Information Flow relationships. An Information Flow indicates that information is transferred from a source element to a target element; its direction is shown by the open arrowhead. Thus, the diagram expresses outgoing information from Administrate Replication to each of the other technology functions. It does not identify sequencing, invocation, or triggering behavior, nor does the notation change the elements into processes or services. The interpretation is therefore based both on the element type shown by the Technology Function notation and on the distinct semantics of composition and information flow. See the [ArchiMate 3.2 Specification](#) and its [Relationships chapter](#).