

## **TOGAF®8 Test Questions**

### **Overview**

- 1) Which of the following statements best describes TOGAF?
  - a) TOGAF is a tool for developing Technology Architectures only.
  - b) TOGAF is an architecture framework and method for architecture development.
  - c) TOGAF is a business model.
  - d) TOGAF is a specific architecture pattern
- 2) Why do you need a framework for enterprise architecture?
  - a) Architecture design is complex.
  - b) Using a framework can speed up the process.
  - c) Using a framework ensures more complete coverage.
  - d) A framework provides a set of tools and a common vocabulary
  - e) All of these
- 3) Which of the following is not considered one of the three main parts of TOGAF?
  - a) The Architecture Development Method
  - b) The Enterprise Continuum
  - c) The Technical Reference Model
  - d) The TOGAF Resource Base
- 4) Which of the types of IT architecture below is not commonly accepted as part of the enterprise architecture addressed by TOGAF?
  - a) Business Architecture
  - b) Data Architecture
  - c) Applications Architecture
  - d) Technology Architecture
  - e) Pattern Architecture
- 5) The Enterprise Continuum is:
  - a) An Architecture Framework
  - b) A database of open industry standards
  - c) A technical reference model
  - d) A virtual repository of architecture assets
  - e) A method for developing architectures.

## **Architecture Development Method (ADM)**

- 6) TOGAF's ADM is specifically designed to best address:
  - a) Business Requirements
  - b) Technical Requirements
  - c) Social Requirements
  - d) Other Requirements
  - e) All of the these
- 7) Which of the following statements does not describe the phases of the ADM?
  - a) They are cyclical
  - b) They are iterative
  - c) Each phase refines the scope
  - d) Each phase is mandatory
  - e) They cycle through a range of architecture views
- 8) Which of the following is not a phase of the ADM?
  - a) Preliminary Phase: Framework and Principles
  - b) Phase C: Business Architecture
  - c) Phase F: Migration and Planning
  - d) Phase D: Technology Architecture
  - e) Phase G: Implementation Governance
- 9) Which of these is not a factor to consider when setting the scope of the architecture activity?
  - a) The scope or focus of the enterprise
  - b) The set of architecture domains to be considered
  - c) The level of detail
  - d) The time horizon
  - e) The Data Architecture
- 10) Which one of the statements below best completes the following statement? Phase E: Opportunities and Solutions:
  - a) Prepares the organization for a successful architecture project
  - b) Is used to develop the systems architecture
  - c) Identifies the major implementation projects
  - d) Produces an implementation roadmap
  - e) Ensures that the project conforms to the architecture

- 11) Which one of the following is an ongoing activity throughout the ADM cycle?
- a) Preliminary Phase
  - b) Requirements Management
  - c) Business Architecture
  - d) Technology Architecture
  - e) Architecture Vision
- 12) Which of the following is not a resource recommended for Requirements Management?
- a) Business Scenarios
  - b) Gap Analysis
  - c) Volere Requirements Specification template
  - d) Requirements tools
  - e) Volere "waiting room" template

### **Preliminary Phase: Framework and Principles**

- 13) Which one of the following is completed during the Preliminary Phase of the TOGAF ADM?
- a) Architecture Principles
  - b) Gap Analysis
  - c) Impact Analysis
  - d) Statement of Architecture Work
  - e) Requirements Gathering
- 14) Which one of the following is not an objective of the Preliminary Phase?
- a) Ensuring that everyone who will be involved is committed to the project's success
  - b) Identifying the people responsible for performing the architecture work, where they are located, and their responsibilities
  - c) Defining the scope of the work and assumptions
  - d) Defining the framework and detailed methodologies
  - e) Developing the Target Business Architecture
- 15) Which of the following is a reason to adapt the ADM?
- a) All of the answers below
  - b) The use of TOGAF is being integrated with another framework
  - c) The ADM is being used for a purpose other than enterprise architecture
  - d) The enterprise is a large federated organization
  - e) The IT governance model needs to be tailored.
- 16) Which of the following statements does not apply to principles?

- a) A principle is a general rule or guideline.
- b) A principle is transient and updated frequently.
- c) An IT principle provides guidance on use and deployment of IT resources.
- d) TOGAF defines a standard way of describing a principle.
- e) A principle statement should be succinct and unambiguous.

17) Which of the following statements is false? An Architecture Board:

- a) Is established to oversee governance of the enterprise architecture
- b) Is responsible for the production of usable governance material
- c) Should meet regularly
- d) Has a recommended size of 12 members
- e) Should represent key stakeholders in the architecture

18) Which of the following statements about architecture principles is not true?

- a) Principles are general rules and guidelines that inform and support the way in which an organization sets about fulfilling its mission
- b) Principles may be established at any or all of three levels: Enterprise, Information Technology, and Architecture
- c) A set of principles should be Understandable, Robust, Complete, Consistent and Stable.
- d) The principle of Data Security implies that security needs must be identified and developed at the application level
- e) The principle of Technology Independence implies the use of standards which support portability

### **Phase A: Architecture Vision**

19) Complete the following sentence: Phase A: Architecture Vision of the TOGAF ADM is initiated upon receipt of a(n):

- a) Approval from the Chief Information Officer
- b) Requirements Analysis
- c) Implementation Plan
- d) Directive from the Chief Executive Officer
- e) Request for Architecture Work from the sponsoring organization

20) Which of the following is not a direct input to Phase A: Architecture Vision?

- a) Request for Architecture Work
- b) Impact Analysis
- c) Architecture Principles
- d) Existing architecture documentation

e) Existing Baseline Architecture descriptions

21) Complete the following sentence: Phase A: Architecture Vision is intended to do all of the following except:

- a) Validate the business principles and goals of the organization
- b) Ensure that the architecture principles are correct
- c) Establish IT governance
- d) Clarify and correct ambiguities in the architecture principles
- e) Define the specific architecture domains to be addressed

22) What is an appropriate technique to document business requirements in Phase A: Architecture Vision?

- a) Business Architecture Report
- b) Gap Analysis
- c) Business Principles
- d) Business Scenarios
- e) Impact Analysis

23) Which of the following best describes the output from Phase A: Architecture Vision?

- a) Approved Statement of Architecture Work
- b) Plan for the Architecture Work
- c) Baseline Business Architecture, Version 0.1
- d) Architecture Principles
- e) All of these

24) The Architecture Vision is the architect's key opportunity to sell the benefits of the proposed developments to the decision-makers. Which of the following does TOGAF describe this as?

- a) The baseline
- b) The elevator pitch
- c) The 10,000 foot view
- d) The visionary view
- e) All of these

- 25) Which of the following statements about the scope of the architecture effort is not true?
- a) Scope includes the level of detail to be defined
  - b) Scope includes the specific architecture domains to be covered (Business, Data, Applications, Technology).
  - c) Scope does not include the extent of the time horizon
  - d) Scope includes assets created in previous iterations of the ADM cycle
  - e) Scope includes assets available elsewhere in the industry.

### **Phase B: Business Architecture**

- 26) Business Architecture is the first architecture activity undertaken since:
- a) It is often necessary to demonstrate the business value of the overall architecture activity.
  - b) It provides knowledge that is a prerequisite for undertaking architecture work in the other domains (Data, Applications, Technology).
  - c) It can be used to demonstrate the return on investment to key stakeholders.
  - d) It embodies the fundamental organization of a business and shows how an organization meets its business goals.
  - e) All of these.
- 27) TOGAF suggests, but does not require the use of <...> to analyze business requirements.
- a) Gap analysis
  - b) Business Scenarios
  - c) SWOT Analysis
  - d) Fishbone Diagrams
  - e) Mind Maps
- 28) Architecture Views:
- a) Are representations of the overall architecture that are meaningful to one or more stakeholders
  - b) Provide an assessment of the skills required to deliver successful enterprise architecture
  - c) Are aimed at speeding the process of developing applications
  - d) Are sets of owned responsibilities that ensure integrity of the organization's architecture
  - e) Are detailed design requirements specific to a phase of the ADM
- 29) Which of the following is not an appropriate tool or technique for capture, modeling, and analysis in association with the viewpoints?

- a) Activity Models
- b) Class Models
- c) Use-case Models
- d) UML Business Class Models
- e) Resource-Event-Agent business models

- 30) Gap analysis is a key step in validating the architecture in Phase B: Business Architecture. Which of the following statements is true?
- a) Gap analysis highlights services that are available.
  - b) Gap analysis highlights the impacts of change.
  - c) Gap analysis highlights services that are yet to be procured.
  - d) Gap analysis identifies areas where the Data Architecture needs to change.
  - e) Gap analysis can be used to resolve conflicts amongst different viewpoints.

### **Phase C: Information Systems Architectures**

- 31) Which of the following is the objective of Phase C: Information Systems Architectures?
- a) Developing the Target Business Architecture
  - b) Developing the Target Data and Applications Architecture
  - c) Developing the Target Technology Architecture
  - d) Evaluating the Target Architectures
  - e) Developing an Applications and Data Migration Plan
- 32) TOGAF recommends which of the following steps be completed in Phase C?
- a) Data Architecture first
  - b) Applications Architecture first
  - c) Either Data Architecture or Applications Architecture, as long as they are in sequence
  - d) Data Architecture and Applications Architecture must be carried out in parallel
  - e) Either Data Architecture or Applications Architecture first, or both in parallel, depending on the project scope and best fit with the Business Architecture

- 33) Which of the following statements about Phase C is true?
- a) A common implementation approach is bottom-up design and top-down implementation
  - b) The Data Architecture is usually developed before the Applications Architecture
  - c) Gap analysis can be used to find omissions in data services and/or data elements
  - d) Entity-relationship diagrams should not be used in the Baseline Data Architecture description
  - e) Logical data models are rarely used in the Baseline Data Architecture description.

### **Data Architecture**

- 34) Which of the following is not an objective of the Data Architecture part of Phase C?
- a) To define the types of data needed
  - b) To define the sources of data needed
  - c) To design a database
  - d) To produce output that is complete
  - e) To produce output that is understandable by the stakeholders
- 35) Which of the following is not an input to the Data Architecture part of Phase C?
- a) Existing data principles
  - b) Request for Architecture Change
  - c) Request for Architecture Work
  - d) Architecture Vision
  - e) Gap analysis results from Business Architecture.
- 36) Which of the following is not a logical data model that can be used for creating Data Architecture models for views?
- a) C4ISR Architecture Framework Logical Data Model
  - b) ARTS
  - c) POSC
  - d) Zachman
  - e) All of these



- 37) Which of the following is the next step in the Data Architecture part of Phase C after the Data Architecture Building Blocks have been selected?
- a) Complete the Data Architecture
  - b) Checkpoint/Impact Analysis
  - c) Gap analysis
  - d) Create Data Architecture Models
  - e) Conduct a checkpoint review
- 38) Which of the following statements is false? Gap analysis in the Data Architecture part of Phase C:
- a) Identifies data that is not processed according to the performance metrics
  - b) Identifies new Architecture Building Blocks for procurement or building
  - c) Identifies accidental omissions in the new architecture
  - d) Identifies data that is not located where it is needed
  - e) Identifies data that is not consumed

### **Applications Architecture**

- 39) How should the application systems best be described?
- a) As computer systems
  - b) As logical groups of capabilities
  - c) As schemas
  - d) As data-flow diagrams
  - e) As UML diagrams
- 40) When resolving conflicts amongst views, which technique can be used?
- a) Gap Analysis
  - b) Trade-off Analysis
  - c) Impact Analysis
  - d) PRINCE2
  - e) Resource-Event-Agent business models
- 41) Which of the following is not a suggested viewpoint for the Applications Architecture part of Phase C?
- a) Software engineering
  - b) Functional users of applications
  - c) Enterprise management
  - d) Financial
  - e) Application-to-application communication

- 42) Which of the following is not suggested by TOGAF for inclusion in the Baseline Applications Architecture Description for each application?
- a) Name of the application
  - b) Licensing status of the application
  - c) Platform dependencies
  - d) Name of the maintainer
  - e) Descriptions of the application in plain language
- 43) What is the next step in the Applications Architecture part of Phase C after reference models and viewpoints have been selected?
- a) Develop an Applications Architecture Baseline Description
  - b) Identify candidate applications
  - c) Create architecture models for each viewpoint
  - d) Conduct a checkpoint review
  - e) Review non-functional criteria

#### **Phase D: Technology Architecture**

- 44) Which of the following statements best describes the objective of Phase D?
- a) To develop a Business Architecture
  - b) To develop a Technology Architecture
  - c) To develop an Applications Architecture
  - d) To develop a Data Architecture
  - e) To evaluate the Technology Architecture
- 45) Which of the following is not an input from an earlier phase of the ADM into Phase D?
- a) The Baseline Technology Architecture
  - b) The Baseline Business Architecture
  - c) Technical Requirements
  - d) The TOGAF TRM
  - e) Re-usable Building Blocks from the Enterprise Continuum
- 46) Which of the following is not a step in Phase D?
- a) Select services
  - b) Create architecture model
  - c) Confirm business objectives
  - d) Consider views
  - e) Implementation Recommendations

- 47) Which of the following is not a part of the Baseline Technology Architecture Description?
- a) A review of the Baseline Information Systems Architecture
  - b) A definition of each major hardware and software platform type
  - c) A draft report summarizing the Baseline Technology Architecture
  - d) A review of the draft Baseline Technology Architecture Report
  - e) A review of non-functional criteria
- 48) Which of the following views is not suggested by TOGAF when creating viewpoints for architecture models in Phase D: Technology Architecture?
- a) Standards
  - b) Costs
  - c) Logical data model
  - d) Communications
  - e) Networking

### **Phase E: Opportunities and Solutions**

- 49) Phase E is the first phase concerned with:
- a) Defining the implementation
  - b) Defining the architecture framework and key architecture principles
  - c) Setting the scope, constraints, and expectations for the project
  - d) Validating the business context
  - e) Analyzing the cost, benefits and risk
- 50) What deliverable from Phase D: Technology Architecture is the most important in Phase E?
- a) Updated Requirements
  - b) Technology Architecture Report
  - c) Impact Analysis
  - d) Gap Analysis
  - e) Updated Business Architecture

- 51) Which of the following is not an objective of Phase E?
- a) Evaluate and select implementation options
  - b) Prioritize the implementation projects
  - c) Identify the top-level projects
  - d) Assess the costs and benefits of the projects
  - e) Generate an overall implementation and migration strategy and a detailed Implementation Plan
- 52) Which technique should be used to identify the parameters of change and the necessary projects in Phase E?
- a) Impact Analysis
  - b) Migration Planning
  - c) Brainstorming Session
  - d) Gap Analysis
  - e) Business Scenarios
- 53) Which of the following is the most successful strategy for Phase E?
- a) Focus on the application systems that are relevant to the enterprise
  - b) Focus on projects that will deliver short-term payoffs
  - c) Focus on top-down development
  - d) Reverse engineering
  - e) Trial and error
- 54) Which of the following statements about Phase E is true?
- a) Coexistence of the old and new systems is straightforward.
  - b) Projects that deliver short-term payoffs should be given low priority
  - c) One of the inputs to this phase is the Architecture Vision
  - d) One of the inputs to this phase is the Request for Architecture Work
  - e) One of the outputs of this phase is the Business Architecture
- 55) Which of the following statements about Phase E is true?
- a) A key step in Phase E is to update the Technology Architecture
  - b) A key step in Phase E is to brainstorm co-existence and interoperability requirements
  - c) A key step in Phase E is to perform a requirements analysis
  - d) One of the outputs from this phase is a trade-off analysis
  - e) One of the outputs from this phase is a list of re-usable Architecture Building Blocks

## **Phase F: Migration Planning**

- 56) Which of the following questions does TOGAF recommend be asked when assessing priorities of projects?
- a) What components need to be developed?
  - b) What are the costs of retraining users?
  - c) What are the benefits of the migration?
  - d) Does the organization have the resources to develop the components?
  - e) All of these.
- 57) Decisions made when assessing the priorities of projects should be incorporated into the:
- a) Gap Analysis
  - b) Statement of Architecture Work
  - c) Baseline Technology Architecture
  - d) Implementation Plan
  - e) Target Technology Architecture
- 58) When implementing business functions in a data-driven chronological sequence, what categorization is made for current systems that are part of the future information system?
- a) Replace systems
  - b) Mainstream systems
  - c) Mainframe systems
  - d) Contain systems
  - e) Legacy systems
- 59) Which artifact of the Data Architecture part of Phase C should be used for sequencing projects in a data-driven chronological sequence?
- a) The CRUD matrix
  - b) Gap analysis
  - c) Impact Analysis
  - d) Statement of Architecture Work
  - e) Data principles
- 60) When preparing the detailed Migration Plan, which of the following should not be a consideration?
- a) Risk assessment
  - b) Project priorities
  - c) Availability of resources
  - d) Cost/benefit assessment
  - e) Choice of target platform

### **Phase G: Implementation Governance**

- 61) Which of the following is not an objective of Phase G?

- a) Formulate recommendations for each implementation project
- b) Construct an Architecture Contract to govern the overall implementation and deployment process
- c) Perform appropriate governance functions while the system is being implemented and deployed
- d) Ensure that the architecture is able to respond to the needs of the business
- e) Ensure conformance with the defined architecture by implementation projects and other projects

62) TOGAF suggests, but does not require, the use of <...> to provide a foundation for governing the implementation of the recommended projects:

- a) Impact Analysis
- b) Principles
- c) Strategic Plan
- d) Architecture Contracts
- e) Risk Assessment

63) TOGAF states that a parallel activity that takes place during Phase G is:

- a) The actual implementation
- b) Generation of a gap analysis report
- c) Review of the Technical Architecture
- d) Development of architectural principles
- e) Development of an Architecture Vision statement

### **Phase H: Architecture Change Management**

64) The primary goal of an architecture change management process is:

- a) To ensure that business continues as usual
- b) To determine whether a change warrants an update to the architecture
- c) To determine whether a change requires a new cycle of the ADM
- d) To manage change properly
- e) To establish criteria for judging change requests

- 65) What is a dynamic architecture?
- a) One that is implemented in Java
  - b) One that can evolve in response to changes in technology and business
  - c) One that uses dynamic binding
  - d) One that has been documented using an ADL
  - e) One that uses object-oriented frameworks
- 66) Which of the following is not a technology-related driver for architecture change?
- a) Standards initiatives
  - b) Technology withdrawal
  - c) New technology reports
  - d) Strategic change
  - e) Asset management
- 67) Which of the following is a key step in Phase H?
- a) Monitoring of technology changes
  - b) Monitoring of business changes
  - c) Meetings of the Architecture Board
  - d) Assessment of changes
  - e) All of these
- 68) If a refreshment cycle is required by a change, what is the immediate impact?
- a) A refresh of the Technology Architecture is required
  - b) A new Statement of Architecture Work is required
  - c) A new Request for Architecture Work is required
  - d) A refresh of the Migration Plan is required
  - e) All of these

### **ADM Information Sets**

- 69) Which of the following is an advantage of using TOGAF over defining an architecture framework from scratch?
- a) TOGAF contains a set of resources and methods for re-use
  - b) TOGAF contains a Foundation Architecture
  - c) TOGAF contains a breadth of tools
  - d) TOGAF has a method which can be followed
  - e) All of these

- 70)The Lead Architect in conjunction with <...> develops architecture principles:
- a) The software development team
  - b) The sales team
  - c) The key business stakeholders
  - d) The finance team
  - e) The executive team
- 71)Which of the following best describes an understandable principle?
- a) It is stable and enduring
  - b) It captures a fundamental truth
  - c) It is complete
  - d) It is clear and unambiguous
  - e) It is self-evident
- 72)Which of the following is not a business principle?
- a) Primacy of Principles
  - b) Common Use Applications
  - c) Business Continuity
  - d) Compliance with the Law
  - e) Ease-of-use
- 73)Which of the following is not built into the COBIT framework?
- a) Maturity Models
  - b) Asset Management Model
  - c) Critical Success Factors
  - d) Key Goal Indicators
  - e) Key Performance Indicators
- 74)Which of the following topics is not part of the suggested Request for Architecture Work document?
- a) The sponsor organization name
  - b) The sponsor organization mission statement
  - c) A set of acceptance criteria
  - d) The time limits for the project
  - e) The description of resources available to the architecture project



- 75)The Statement of Architecture Work is a response to the Request for Architecture Work. Which of the following describe it?
- a) It contains a detailed description of the business functions in the organization
  - b) It describes an overall plan to address the request for work including a schedule.
  - c) It is an output of Phase B: Business Architecture
  - d) It lists the actors and their roles in the architecture work
  - e) It includes a selection of the architecture model for the project.
- 76)Which technique is used in Phase A: Architecture Vision to identify the key stakeholders and their concerns?
- a) Gap analysis
  - b) Requirements Impact Analysis
  - c) Business scenarios
  - d) All of these
  - e) Requirements change management
- 77)The Business Architecture generated in Phase B should describe all the following except:
- a) A high-level description of the people and locations involved with key business functions
  - b) Impact Analysis report
  - c) Business Architecture Building Blocks
  - d) Candidate business Solution Building Blocks
  - e) Technical requirements for subsequent phases
- 78)When performing gap analysis during the Business Architecture phase, which of the following is not a valid response to the case of a Business Architecture Building Block from the Baseline Architecture found to be missing in the Target Architecture?
- a) A review should occur
  - b) If the building block was correctly eliminated, it should be added to the Target Architecture in the next iteration
  - c) If the building block was correctly eliminated, it should be marked as such in an "Eliminated" cell.
  - d) If the building block was incorrectly eliminated, it should be reinstated to the architecture design in the next iteration
  - e) If the building block was incorrectly eliminated, it should be recorded as an accidental omission.
- 79)The Technology Architecture generated in Phase D should describe all the following except:
- a) A skills matrix and set of job descriptions
  - b) Gap analysis report

- c) Requirements Traceability Analysis
- d) Technology Architecture Models
- e) Technical specification for each building block

80) Views and viewpoints are used by an architect to capture or model the design of a system architecture. Which of the following statements is true?

- a) A view is the perspective of an individual stakeholder
- b) Different stakeholders always share the same views
- c) Some views do not have associated viewpoints
- d) A viewpoint is the perspective of an individual stakeholder
- e) Views and viewpoints are rarely used in TOGAF

81) Which of the following statements describe generic building blocks?

- a) A building block is a package of functionality defined to meet the business needs
- b) All of these
- c) A building block has published interfaces to access the functionality
- d) A building block may be assembled from other building blocks
- e) A building block may have multiple implementations

82) Architecture Building Blocks are architecture documentation and models from the enterprise's:

- a) Solutions Continuum
- b) Architecture Vision
- c) Architecture Continuum
- d) Architecture Board
- e) CIO

83) Which of the following best describes the characteristics of Solution Building Blocks?

- a) They are defined in ADM Phase A and B.
- b) They define what products and components will implement the functionality
- c) They are technology-aware
- d) They fulfill business requirements
- e) They capture business and technical requirements

- 84) Which of the following are generated in the Impact Analysis in Phase E?
- a) A project list
  - b) A time-oriented Migration Plan describing how existing systems will be migrated to the new architecture
  - c) A set of measures of effectiveness for the projects
  - d) A cost/benefit analysis for the proposed projects
  - e) A cost estimate for the migration projects
- 85) The typical contents of an Architecture Design and Development Contract include:
- a) The scope of the architecture
  - b) All of these
  - c) Architecture development and management processes and roles
  - d) Time window(s)
  - e) Architecture delivery and business metrics
- 86) Which of the following statements is not true?
- a) Product Information is an input to Phase E.
  - b) When considering products, a document should be produced containing their functional descriptions
  - c) When considering products, a document should be produced containing their architecture descriptions
  - d) TOGAF does not provide a set of guidelines for reviewing Requests for Architecture Change
  - e) The Business Users' Architecture Contract is used to manage changes to the enterprise architecture in Phase H.
- 87) Which of the following statements concerning New Technology Reports is true?
- a) They are generated in Phase H.
  - b) They drive the Change Management process
  - c) They should document new developments in potentially relevant technology
  - d) There is no recommended format for them
  - e) All of these
- 88) Which of the following are included in the recommended contents of a Requirements Impact Statement?
- a) Stakeholders' priorities of the requirements to date
  - b) Phases to be revisited
  - c) Results of phase investigations and revised priorities
  - d) Recommendations on management of requirements
  - e) All of these

## **The Technical Reference Model (TRM)**

- 89) Which of the following is not a characteristic of the TOGAF Foundation Architecture?
- a) It reflects general building blocks
  - b) It defines open standards for building blocks implementation
  - c) It provides open systems standards
  - d) It provides guidelines for testing collections of systems
  - e) It reflects general computing requirements
- 90) Which of the following best describes the purpose of the TRM?
- a) To provide a framework for IT governance
  - b) To provide a visual model, terminology, and coherent description of components and structure of an information system
  - c) To provide a list of standards
  - d) To provide a method for architecture development
  - e) To provide a system engineering viewpoint on a possible solution
- 91) Which of the following statements about a Taxonomy of Platform Services is true?
- a) It provides a description of a specific vertical industry information system.
  - b) It defines a number of service qualities
  - c) It provides a widely accepted, useful definition of an Application Platform entity.
  - d) It is used in structuring the III-RM
  - e) It provides a list of standards.
- 92) Which of the following is not a service category in the TRM?
- a) Software Engineering Services
  - b) Security Services
  - c) Operating System Services
  - d) Object Services
  - e) User Interface Services
- 93) Which of the following is a service within the Location and Directory Service Category defined in the TRM?
- a) Electronic mail services
  - b) Service location services
  - c) Run-time environment services
  - d) Non-repudiation services
  - e) Database services
- 94) Which of the following is not a quality defined in the Taxonomy of Service Qualities for Availability?

- a) Manageability: The ability to gather information about the state of something and to control it.
- b) Recoverability: The ability to restore a system after an interruption
- c) Serviceability: The ability to repair or upgrade a component in a running system
- d) Reliability: The resistance to failure
- e) Scalability: The ability of a component to grow or shrink its performance or capacity appropriately

### **Standards Information Base (SIB)**

- 95) Which of the following is a standards organization whose standards are not currently listed in the SIB?
- a) Institute of Electrical Engineers
  - b) The Open Group
  - c) International Standards Organization
  - d) Object Management Group
  - e) Internet Society
- 96) Which of the following is not a use of the SIB?
- a) To identify and provide a taxonomy of platform services
  - b) To identify and provide a standards information for procurement
  - c) To guide procurers on applicable standards
  - d) To identify and provide a reference on standards information to populate architectures
  - e) To identify and provide IT standards information
- 97) Which of the following is not a service category in the SIB?
- a) Software Engineering Services
  - b) Security Services
  - c) Operating System Services
  - d) Object Services
  - e) Network Services
- 98) To search for available products for an Open Group certification program, which is the most applicable search field to narrow down the search?
- a) Reference
  - b) Title
  - c) Service category
  - d) Type
  - e) Open Group Product Standard
- 99) Which of the following status values indicates that a standard is a current formal standard of the Open Group?

- a) Other
- b) Pending
- c) Preliminary
- d) Obsolete
- e) Adopted

100) In which phase of the ADM is the SIB used as an input?

- a) Phase A
- b) Phase B
- c) Phase C
- d) Phase D
- e) Phase E

### **Introduction to the Enterprise Continuum**

101) Which of the following statements does not apply to the Enterprise Continuum?

- a) It is a virtual repository of all known architecture assets and artifacts in the IT industry
- b) It is a virtual repository of all architecture assets and artifacts which the enterprise is considering in its own architecture project
- c) It provides a taxonomy for classifying architecture assets
- d) It is an important aid to communication for architects on both the buy and supply-side
- e) It is an aid to organization of re-usable and solution assets

102) Which of the following in the Enterprise Continuum is an example of "assets within the enterprise"?

- a) Deliverables from previous architecture work
- b) Industry reference models and patterns
- c) The TOGAF TRM
- d) The Zachman Framework
- e) The ARTS data model

103) Which of the following in the Enterprise is not an example of "assets within the IT industry at large"?

- a) The TOGAF TRM
- b) The Zachman Framework
- c) IT-specific models, such as web services
- d) The ARTS data model
- e) Deliverables from previous architecture work

104) Which of the following answers complete the next phrase? The criteria for including source materials in an organization specific Enterprise Continuum...

- a) Is decided in Phase A of the ADM

- b) Is part of the IT governance process
- c) Is decided by the choices made in the Foundation Architecture
- d) Is decided by the stakeholders
- e) Is decided by the CEO

105) Which of the following complete the sentence? The Enterprise Continuum aids communication...

- a) Within enterprises
- b) Between enterprises
- c) With vendor organizations
- d) By providing a consistent language to communicate the differences between architectures
- e) All of these

### **The Architecture Continuum**

106) Which of the following responses does not complete the next sentence? The continuum of architectures within the Architecture Continuum are:

- a) Part of the virtual repository of architecture assets
- b) A set of architectures known as Architecture Building Blocks (ABBs)
- c) Part of the set of architecture assets within the Enterprise Continuum
- d) A set of models used to construct enterprise-specific architectures
- e) A set of Solution Building Blocks

107) The following different types of architectures are usually shown when illustrating the Architecture Continuum, except:

- a) Organization Architectures
- b) Gothic Architectures
- c) Foundation Architectures
- d) Industry Architectures
- e) Common Systems Architectures

- 108) Which of the following responses does not complete the next sentence? When moving around the Architecture Continuum:
- a) The architect looks towards the left of the continuum for reusable architecture elements
  - b) As you move right there is a progression from Horizontal (IT-focused) to Vertical (Business-focused)
  - c) Enterprise-specific needs and requirements are addressed in more detail as you move to the right
  - d) As you move right there is a progression from a generalization to specialization
  - e) When elements are not found, the requirements must be passed to the right for incorporation
- 109) Which of the following statements are true? The TOGAF Integrated Information Infrastructure Reference Model (III-RM):
- a) Is an example of a Common Systems Architecture
  - b) Is an example of an Industry Architecture
  - c) Is an example of an Enterprise Architecture
  - d) Is part of the TOGAF Foundation Architecture
  - e) Is required for use in the ADM
- 110) Complete the following sentence: It is recommended that you have your own Foundation Architecture:
- a) That governs the way your IT systems must behave in your industry
  - b) That governs all of your IT systems
  - c) That governs all of the IT systems within a specific department
  - d) That governs major shared infrastructure systems
  - e) All of these

### **The Solutions Continuum**

- 111) Which of the following responses does not complete the next sentence? The Solutions Continuum is:
- a) A set of reference building blocks
  - b) A set of reference building blocks known as Architecture Building Blocks (ABBs)
  - c) Part of the set of architecture assets within the Enterprise Continuum
  - d) A representation of the architectures at the corresponding level in the Architecture Continuum
  - e) A set of Solution Building Blocks
- 112) The following reference building blocks are usually shown when illustrating the Solutions Continuum, except:



- a) Systems libraries
- b) Organization solutions
- c) Products and services
- d) Systems Solutions
- e) Industry Solutions

113) Which of the following statements is not true?

- a) Products are separately procurable hardware, software, or service entities
- b) A “systems solution” is an implementation of a Common Systems Architecture comprising a set of products and services
- c) An “industry solution” is an implementation of an Industry Architecture
- d) An example of an industry solution is a physical database schema
- e) An example of a systems solution is an industry-specific point-of-service device

114) Which of the following statements is not true?

- a) Products are the fundamental providers of capabilities
- b) Systems solutions represent collections of common requirements and capabilities
- c) Industry solutions are industry-specific, aggregate procurements
- d) Enterprise solutions contain the smallest amount of unique content
- e) An “enterprise solution” is an implementation of the enterprise architecture that provides the required business functions

115) Which of the following statements is not true?

- a) The Enterprise Continuum should be interpreted as representing strictly chained relationships
- b) A populated Solutions Continuum can be regarded as a solutions inventory or re-use library
- c) Computer systems vendors are the primary provider of systems solutions
- d) An industry solution may include specific products, services, and systems solutions that are appropriate to that industry
- e) The primary purpose of connecting the Architecture Continuum to the Solutions Continuum is to build enterprise solutions on industry solutions, systems solutions, and products and services.

### **Positioning TOGAF**

116) TOGAF is one of a number of architectures and architecture frameworks in use today, many of which have a good deal in common with TOGAF. The following describe the positioning of TOGAF, except:

- a) TOGAF can be tailored to meet specific needs
- b) The TOGAF ADM is a generic method
- c) TOGAF is designed for use by enterprises in specific geographies and industries
- d) TOGAF can be used in conjunction with deliverables from another framework
- e) TOGAF can be used in conjunction with the Zachman Framework

117) Which of the following statements is not TRUE?

- a) The Zachman Framework is a widely used approach for developing and/or documenting an enterprise-wide Information Systems Architecture.
- b) The Zachman Framework is based on practices in traditional architecture and engineering
- c) There is a close correlation between the Zachman Framework and the TOGAF ADM.
- d) The horizontal axis of the Zachman Framework provides a source of potential viewpoints for the architect to consider
- e) The Zachman Framework says nothing about the process for developing viewpoints.

118) Which of the following statements is not TRUE?

- a) C4ISR stands for Command, Control, Computers, Communications, Intelligence, Surveillance, and Reconnaissance.
- b) The CORBA architecture is an object-oriented Applications Architecture based on the concept of an Object Request Broker (ORB).
- c) Enterprise Architecture Planning (EAP) is a set of methods for planning the development of Information, Applications, and Technology Architectures and for aligning the three types of architecture with respect to each other.
- d) The purpose of the Federal Enterprise Architecture: Practical Guide is to provide guidance to US federal agencies in initiating, developing, using and maintaining their enterprise architectures.
- e) The TOGAF Architecture Development Method (ADM) was originally based on parts of SPIRIT.

119) Which of the following statements is not TRUE?

- a) EAP has a taxonomy of viewpoints and views
- b) The FEAF contains guidance analogous to the TOGAF Foundation Architecture and architectural viewpoints and views.
- c) TOGAF coverage is a superset of that provided by RM-ODP
- d) SPIRIT defines a practical, tested selection of specifications, most of which are referenced within the TOGAF (SIB)
- e) The Zachman framework does not provide a method such as TOGAF's ADM, or a TRM or SIB.

120) Which of the following statements is not TRUE?

- a) The use of the term "view" in the C4ISR Architecture Framework is different from the use of the term in TOGAF
- b) CORBA focuses exclusively on issues affecting distributed object-oriented systems.
- c) The EAP methodology is analogous to the TOGAF ADM
- d) TAFIM and TOGAF have very little in common
- e) The viewpoints in TOGAF do not cover all of the Zachman Framework

- 121)The US DoD C4ISR Architecture Framework provides three views. Which of the following sets of views is provided?
- a) Logical, Physical, system
  - b) Technical, physical, logical
  - c) Operational, system, technical
  - d) Logical, operational, system
  - e) Technical, physical, operational

### **Architecture Governance**

- 122)Which of the following statements about architecture governance is not true?
- a) It is the practice and orientation by which enterprise architectures and other architectures are managed and controlled
  - b) The CEO manages the architecture governance activity
  - c) A governance board manages the architecture governance activity
  - d) An Architecture Governance Framework supports it.
  - e) It is a set of owned responsibilities that ensure the integrity and effectiveness of the organization's architecture
- 123)The following are included in Architecture Governance, except:
- a) Implementing a system of controls over expenditure within the enterprise
  - b) Implementing a system of controls over the creation and monitoring of all architecture components and activities
  - c) Implementing a system to ensure compliance with internal and external standards and regulatory obligations
  - d) Establishing processes that support effective management of the architecture governance process
  - e) Developing practices that ensure accountability to stakeholders

124) Which of the following maps to the characteristic “transparency”?

- a) All decisions taken, processes used, and their implementation will not be allowed to create unfair advantage to any one particular party
- b) Each contractual party is required to act responsibly to the organization and its shareholders
- c) All actions implemented and their decision support will be available for inspection by authorized organization and provider parties
- d) All involved parties will have a commitment to adhere to procedures, processes, and authority structures established by the organization
- e) All processes, decision-making, and mechanisms used will be established so as to minimize or avoid potential conflicts of interest.

125) Which of the following lists the governance structures into a hierarchy with the broadest applicability given last?

- a) Corporate governance, IT governance, technology governance, architecture governance
- b) IT governance, technology governance, architecture governance, IT governance
- c) Technology governance, architecture governance, IT governance, corporate governance
- d) Architecture governance, IT governance, technology governance, corporate governance
- e) IT governance, corporate governance, architecture governance, technology governance

126) Conceptually, the structure of an Architecture Governance Framework consists of Process, Content and Context (stored in the repository). The following are included in Content, except:

- a) Compliance
- b) SLAs and OLAs
- c) Organizational Standards
- d) Regulatory Requirements
- e) Architectures

- 127) The following are key architecture governance processes, except:
- a) Compliance
  - b) Dispensation
  - c) Monitoring and Reporting
  - d) Budgetary Control
  - e) Business Control
- 128) Establishing an Architecture Board prevents one-off solutions and unconstrained developments that lead to:
- a) High costs of development
  - b) High costs of support
  - c) Lower quality
  - d) Numerous run-time environments
  - e) All of these
- 129) Why is architecture governance beneficial?
- a) It links IT processes, resources, and information to organizational strategies and objectives.
  - b) It integrates and institutionalizes IT best practices
  - c) It enables the organization to take full advantage of its information, infrastructure, and hardware and software assets
  - d) It protects the underlying digital assets of the organization
  - e) All of these
- 130) Which of the following is an example of an IT governance framework?
- a) ITIL
  - b) PRINCE 2
  - c) COBIT
  - d) TOGAF
  - e) ATAM
- 131) Which of the following is not a key architecture governance process?
- a) Undertaking compliance assessments against SLAs
  - b) Architecture implementation
  - c) Granting dispensations
  - d) Business control to ensure compliance with business policies
  - e) Managing architecture amendments, contracts, etc.

132) The following management guidelines are built into COBIT, except:

- a) Maturity models
- b) Critical success factors
- c) Key goal indicators
- d) Service level agreements
- e) Key performance indicators

## **Answers**

1) B	45)D	89)D
2) E	46)E	90)B
3) C	47)E	91)C
4) E	48)C	92)D
5) D	49)A	93)B
6) A	50)D	94)E
7) D	51)B	95)A
8) B	52)D	96)A
9) E	53)B	97)D
10)C	54)D	98)E
11)B	55)B	99)E
12)B	56)E	100)D
13)A	57)D	101)A
14)E	58)B	102)A
15)A	59)A	103)E
16)B	60)E	104)B
17)D	61)D	105)E
18)D	62)D	106)E
19)E	63)A	107)B
20)B	64)D	108)E
21)C	65)B	109)A
22)D	66)D	110)B
23)E	67)E	111)B
24)B	68)C	112)A
25)C	69)E	113)E
26)E	70)C	114)D
27)B	71)D	115)A
28)A	72)E	116)C
29)E	73)B	117)D
30)C	74)C	118)E
31)B	75)B	119)A
32)E	76)C	120)D
33)C	77)B	121)C
34)C	78)B	122)B
35)B	79)A	123)A
36)D	80)D	124)C
37)E	81)B	125)D
38)A	82)C	126)A
39)B	83)B	127)D
40)B	84)A	128)E
41)D	85)B	129)E
42)B	86)D	130)C
43)C	87)E	131)B
44)B	88)E	132)D



## **TOGAF®8 Test Examination Paper**

True or False

### **Introduction to TOGAF**

- 1) The ADM is a generic method for architecture development designed to deal with most system and organizational requirements.
  - a) The order of the phases in the ADM is independent of the maturity of the architecture discipline within the enterprise
  - b) It is impossible to integrate TOGAF with the Zachman Framework
  - c) The ADM can be used as a general program management method
  - d) A complete architecture should address four domains (Business, Data, Applications, Technology)
  - e) The order of the phases in the ADM may be defined by the business and architecture principles of an enterprise
- 2) Large scale architectures are often undertaken in the form of “federated architectures”.
  - a) Complex architectures are hard to manage
  - b) One approach to federated architecture development is to divide the enterprise up “vertically” into “segments” each representing a business sector within the enterprise
  - c) The approach known as “super-domains” divides an enterprise architecture horizontally so that each architecture domain (Business, Data, Applications, and Technology) covers the full extent of the enterprise
  - d) “Super-domain” architecture projects are usually undertaken as integrated projects, with the same personnel
  - e) The US Federal CIO Council chose the “segment” approach in its Federal Enterprise Architecture Framework

## **Phase A: Architecture Vision**

- 3) The architecture Vision is an opportunity to sell the benefits of the proposed development within an enterprise.
  - a) Clarifying and agreeing on the purpose of the architecture effort is one of the key parts of this activity.
  - b) Key elements of the Architecture Vision include the enterprise mission, vision, strategy, and business case
  - c) The Architecture Vision includes a high-level description of the baseline and target environments
  - d) Business scenarios are an appropriate technique to discover and document business requirements
  - e) Once an Architecture Vision is defined and documented it is not necessary to use it to build a consensus
- 4) It is important to define the scope of the architecture effort.
  - a) Scope includes the level of detail to be defined
  - b) Scope includes the specific architecture domains to be covered (Business, Data, Applications, Technology)
  - c) Scope does not include the extent of the time horizon
  - d) Scope includes assets created in previous iterations of the ADM cycle
  - e) Scope does not include assets available elsewhere in the industry

## **Stakeholders and Concerns, Business Requirements, and Architecture Vision**

- 5) Key stakeholders must be identified.
  - a) Business scenarios are an appropriate technique to articulate an Architecture Vision
  - b) Human actors do not need to be identified
  - c) Objectives and measures of success should be identified
  - d) Computer actors do not need to be identified
  - e) Roles and responsibilities should be identified

## **Development of a Business Architecture**

- 6) The Business Architecture is the first architecture activity that needs to be undertaken.
  - a) The Business Architecture is often necessary to show the business value of subsequent Technology Architecture work to key stakeholders
  - b) Key elements of the Business Architecture may be done in other activities
  - c) The business strategy typically defines what to achieve and how to get there
  - d) A key objective is to re-use existing material as much as possible
  - e) Phase B will rarely involve a lot of detailed work
- 7) An objective of Phase B is to describe the Baseline Business Architecture and a Target Business Architecture.
  - a) The normal approach to Target Architecture development is top-down
  - b) The analysis of the Baseline Architecture often has to be done top-down
  - c) Business process models describe the functions associated with the business, the internal data exchanges, and the external data exchanges
  - d) A use-case model describes business processes in terms of use-cases and actors
  - e) A class model describes dynamic information and relationships between information

## **Business Modeling and Business Models**

- 8) A variety of modeling tools and techniques can be used to model a business.
  - a) Activity models capture the activities performed in a business process together with the inputs, controls, outputs, and resources used.
  - b) Activity models and use-case models can be represented in Unified Modeling Language, but class models cannot.
  - c) Node connectivity within a Node Connectivity Diagram can be described at three levels: conceptual, logical, physical.
  - d) RosettaNet is a consortium that has developed a set of e-business processes for supply chain use.
  - e) Generic business models relevant to an organization's industry sector are termed "Common Systems Architectures" in the Enterprise Continuum.

## **Gap Analysis**

- 9) A key step in validating an architecture is to consider what may have been forgotten.
- a) Gaps are not usually found by considering stakeholder concerns
  - b) Gaps are not usually found by considering buildings and office space
  - c) Duplicate or missing tool functionality should be considered
  - d) Cross-training requirements should be considered
  - e) Process inefficiencies should not be considered

## **Views**

- 10) A view is a representation of a whole system from the perspective of a related set of concerns.
- a) A possible Business Architecture view is the usability view
  - b) A logical data view can be part of a Data Architecture view.
  - c) A software engineering view is usually part of a Technology Architecture view
  - d) A hardware view is not usually part of a Technology Architecture view
  - e) A data flow view is usually part of a Data Architecture view

## **Viewpoints**

- 11) A viewpoint defines the perspective from which a view is taken.
- a) Viewpoints are generic and can be stored in libraries for re-use
  - b) Every view has an associated viewpoint that describes it, at least implicitly
  - c) A viewpoint is not normally developed or visualized using a tool
  - d) Relevant Business Architecture viewpoints include operational, managerial, and financial
  - e) A viewpoint does not define how to construct or use a view

## **Business Architecture Model**

- 12) An objective of Phase B is to develop a Target Business Architecture.
- a) It is important to create a model of the organization structure.
  - b) It is important to model the business goals and objectives.
  - c) It is not necessary to include measures and deliverables when modeling the business processes
  - d) It is necessary to relate business functions to organizational units in the form of a matrix report.
  - e) Gap analysis should be used to resolve conflicts

## **Information Systems Architecture**

- 13) The objective of Phase C is to develop Target Architectures covering the Data and/or Applications Architecture domains.
- a) A common implementation approach is bottom-up design and top-down implementation
  - b) The Data Architecture is usually developed before the Applications Architecture
  - c) Gap analysis can be used to find omissions in data services and/or data elements
  - d) Entity-relationship diagrams can be used in the Baseline Data Architecture description
  - e) Logical data models are rarely used in the Baseline Data Architecture description

## **Data Architecture**

- 14) The objective of the Data Architecture is to define the major types and sources of data necessary to support the business.
- a) Data entities in the Data Architecture should be mapped to business functions in the Business Architecture
  - b) It is important to indicate which of the CRUD operations are performed by which functions
  - c) Impact Analysis is used to resolve conflicts among the different views.
  - d) Non-functional requirements are not usually reviewed during Data Architecture development
  - e) A formal checkpoint review of the architecture model and building blocks is unnecessary

## **Applications Architecture**

- 15) The objective of the Applications Architecture is to define the major kinds of applications systems necessary to process the data and support the business.
- a) It is important to model at least the Common Applications Services view and the Applications Interoperability view.
  - b) Potential application systems can be found by brainstorming
  - c) The Applications Architecture document does not need to be reviewed by stakeholders
  - d) A gap analysis should be performed to identify any areas where the Business Architecture may need to change
  - e) Qualitative criteria should be reviewed.

## **Technology Architecture**

- 16) The objective of Phase D is to develop a Technology Architecture for implementation.
- a) It is not necessary to develop a Baseline Description of the existing Technology Architecture.
  - b) The Business Architecture is used to select the most relevant viewpoints for the project
  - c) Views to consider include Hardware, Communications, Processing, Cost, and Standards
  - d) Impact Analysis should be used to resolve conflicts among the different viewpoints.
  - e) The Technology Architecture model usually starts as a TOGAF TRM-based model
- 17) Outputs from previous phases are used in Phase D.
- a) Technology principles are used as inputs to Phase D if they exist
  - b) The Statement of Architecture Work is used as an input to Phase D.
  - c) The Architecture Vision is not used as an input to Phase D
  - d) Relevant technical requirements from previous phases are used as inputs to Phase D.
  - e) The gap analysis from the Data Architecture is used as an input to Phase D.

- 18)Phase D includes the development of the Baseline Technology Architecture description.
- a) The scope and level of detail for the Baseline Description of the existing Technology Architecture depends on the extent to which existing technology components will be re-used.
  - b) The Baseline Description should include a plain language description of what each hardware platform is and what it is used for.
  - c) The networks accessed are not included in the Baseline Description.
  - d) Graphics and schematics should be used to illustrate baseline configuration(s).
  - e) The Baseline Technology Architecture Report is not usually sent for review by relevant stakeholders
- 19)During Phase D the Target Technology Architecture is developed.
- a) The objective of this step is to convert the description of the existing system into services terminology using the organization's Foundation Architecture
  - b) The TOGAF Foundation Architecture's TRM can be used
  - c) The conceptualization of Architecture Building Blocks should have been done in a previous phase
  - d) Architecture Building Blocks are intended to be solutions
  - e) An architecture description language can be used to document the Architecture Building Blocks
- 20)The first step of the Target Technology Architecture development is to create a Baseline Description in the TOGAF format.
- a) The objective of this step is to convert the description of the existing system into object-oriented terminology
  - b) This step captures candidates for re-usable building blocks from the existing architecture
  - c) An important task is to set down a list of key questions that can be used later to measure the effectiveness of the new architecture
  - d) It is not necessary to review and validate the set of Technology Architecture principles during this step
  - e) It is not necessary to verify the Technology Architecture model during this step
- 21)The second step of the Target Technology Architecture development is to consider different architecture reference models, viewpoints, and tools.

- a) The objectives of this step are to perform an analysis of the Technology Architecture from a number of different viewpoints and to document each relevant viewpoint.
  - b) The Data Architecture is used to select the most relevant viewpoints for the project
  - c) A comprehensive set of stakeholder viewpoints must be created for the target system
  - d) Views to consider include Hardware, Communications, Processing, Cost, and Database
  - e) Sophisticated modeling tools and techniques must be used when modeling and analyzing the Target Technology Architecture in association with the selected viewpoints
- 22)The third step of the Target Technology Architecture development is to create an architecture model of building blocks.
- a) An architecture based exactly on the TOGAF TRM may not be able to accommodate the stakeholder needs of all organizations
  - b) It is not possible to make decisions about how the various elements of system functionality should be implemented in this step
  - c) This step defines the future model of Architecture Building Blocks
  - d) The model is not usually tested for coverage and completeness of the required technical functions
  - e) An input to this step is the Architecture Vision
- 23)The fourth step of the Target Technology Architecture development is to select the services portfolio required for each building block.
- a) Some of the services in the service description portfolio may be conflicting
  - b) One of the inputs to Step 4 is the Technical Reference Model (TRM)
  - c) One of the inputs to Step 4 is the Standards Information Base (SIB)
  - d) One of the inputs to Step 4 is the Data Architecture
  - e) A key activity in Step 4 is producing a list of services arranged alphabetically
- 24)The fifth step of the Target Technology Architecture development is to confirm that the business goals and objectives are met.
- a) One of the inputs to this step is the Business Architecture
  - b) One of the inputs to this step is the Applications Architecture
  - c) A key activity in this step is to perform an Impact Analysis using the specifications and portfolios of specifications
  - d) One of the key activities in this step is a formal checkpoint review of the architecture model and building blocks



- e) One of the key activities in this step is validating that business goals are met

25) The sixth step of the Target Technology Architecture development is to develop a set of criteria for choosing specification and portfolios of specifications.

- a) Large organizations often consider the most important criteria to be a high level of consensus
- b) A key activity in this step is to brainstorm criteria for choosing specifications and portfolios of specifications
- c) A key activity in this step is to perform an Impact Analysis using the specifications and portfolios of specifications
- d) One of the inputs to this step is the Architecture Vision
- e) One of the outputs of this step is the Application Architecture.

26) The seventh step of the Target Technology Architecture development is to complete the architecture definition.

- a) The objective of this step is to fully specify the Applications Architecture
- b) The selection of building blocks and interfaces only has a small impact on how the original requirements are met
- c) The specification of building blocks as a portfolio of services is an evolutionary process
- d) The earliest building block definitions start as relatively abstract
- e) One of the inputs to this step is the Data Architecture

- 27) There are a number of key activities in Step 7 of the Target Technology Architecture development.
- a) A key activity in this step is to select standards for each of the Architecture Building Blocks
  - b) A key activity in this step is to document the final mapping of the architecture within the Architecture Continuum
  - c) A key activity in this step is to document the rationale for building block decisions
  - d) A key activity in this step is to present the current state of the architecture to sponsors in order to negotiate a continuation.
  - e) A key activity in this step is to ensure that the Business Architecture remains unchanged.

### **Phase E: Opportunities and Solutions**

- 28) Phase E is concerned with opportunities and solutions for implementation.
- a) One of the objectives of Phase E is to evaluate and select suitable Architecture Building Blocks
  - b) One of the objectives of Phase E is to assess the dependencies, costs, and benefits of the various projects
  - c) It is never necessary to iterate between Phase E and previous phases.
  - d) Phase E is the first phase which is directly concerned with implementation
  - e) Trade-off analysis is an effective approach for this phase
- 29) Phase E continued.
- a) Coexistence of the old and new systems is straightforward
  - b) Projects that deliver short-term pay-offs should be given low priority
  - c) One of the inputs to this phase is the Architecture Vision
  - d) One of the inputs to this phase is the Request for Architecture Work
  - e) One of the inputs to this phase is the Business Architecture

30)Phase E continued.

- a) A key step in Phase E is to brainstorm technical requirements from a functional perspective
- b) A key step in Phase E is to brainstorm co-existence and interoperability requirements
- c) A key step in Phase E is to perform a requirements analysis
- d) One of the outputs from this phase is a trade-off analysis
- e) One of the outputs from this phase is a list of re-usable Architecture Building Blocks

### **Phase F: Migration Planning**

31)Phase F is concerned with migration planning.

- a) The objective of Phase F is to sort the various implementation projects into alphabetical order
- b) An important consideration is the cost of retraining the users
- c) An important consideration is the likely cultural impact on the user community.
- d) Migration rarely requires consideration of technical issues
- e) The most successful basic strategy is to focus on the most complex projects first

32)Phase F continued.

- a) Distributed systems can be treated in the same way as non-distributed systems
- b) A common approach is to implement business functions in a data-driven chronological sequence
- c) One of the inputs to Phase F is the Data Architecture
- d) One of the inputs to Phase F is the Business Architecture
- e) One of the inputs to Phase F is an Impact Analysis project list

33)Phase F continued.

- a) A key step in Phase F is to list the projects in alphabetical order
- b) A key step in Phase F is to estimate resource requirements and availability
- c) A key step in Phase F is to perform risk assessment
- d) A key step in Phase F is a cost/benefit assessment of the migration projects
- e) The output of Phase F is a gap analysis

## **Phase G: Implementation Governance**

- 34) Phase G is concerned with Implementation Governance.
- a) One of the objectives of Phase G is to formulate recommendations for each implementation project.
  - b) One of the objectives of Phase G is to perform appropriate governance functions while the system is being implemented
  - c) The actual development happens when Phase G has finished
  - d) One of the inputs to Phase G is the Data Architecture
  - e) One of the inputs to Phase G is the set of Architecture Building Blocks
- 35) Phase G continued.
- a) A key step in Phase G is documenting the scope of the individual projects
  - b) A key step in Phase G is obtaining signatures from all developing organizations
  - c) A key step in Phase G is a gap analysis
  - d) One of the outputs from Phase G is an Architecture Contract
  - e) One of the outputs from Phase G is a gap analysis

## **Phase H: Architecture Change Management**

- 36) Phase H is concerned with establishing procedures for managing change.
- a) Phase H will typically provide for the continual monitoring of new developments in technology
  - b) A goal of this phase is to ensure that the enterprise architecture is not permitted to change
  - c) A goal of this phase is to ensure that the enterprise architecture development cycle does not restart
  - d) The governance body must establish criteria to judge whether a change request warrants merely an architecture update or a new cycle of the ADM
  - e) Guidelines for establishing criteria are straightforward to prescribe

37)Phase H continued.

- a) Technology-related drivers for architecture change include new technology reports
- b) Technology-related drivers for architecture change include asset management cost reductions
- c) PRINCE 2 is a project management method that can be used in this phase
- d) The three categories of architecture change are Simplification, Incremental, and Prototyping
- e) If a change impacts two stakeholders then it is likely to be a candidate

38)Phase H continued.

- a) Ten systems reduced or changed to one system would be classed as an incremental change
- b) One of the inputs to Phase H is the set of Architecture Building Blocks
- c) One of the inputs to Phase H is the set of standards initiatives
- d) A key step in Phase H is the meeting of the Architecture Board (or other governing council).
- e) One of the outputs from Phase H is a list of prioritized projects

### **ADM Architecture Requirements Management**

39)Architecture requirements must be managed throughout the ADM.

- a) TOGAF does not mandate or recommend a specific process or tool for requirements management
- b) The Volere Requirements Specification Template may be of use
- c) The inputs to the Requirements Management process are the requirements-related outputs from each ADM phase
- d) The output of the Requirements Management process itself is the System Requirements Specification
- e) Determining stakeholder satisfaction with the decisions is optional.

## **ADM Input and Output Descriptions**

- 40)The Architecture Development Method requires and provides a number of inputs and outputs.
- a) One of the inputs to the Request for Architecture Work is the organization's mission statement
  - b) One of the inputs to the Request for Architecture Work is the set of strategic plans for the business.
  - c) One of the inputs to the Request for Architecture Work is the list of new developments in potentially relevant technologies.
  - d) Budget information is not needed as an input to the Request for Architecture Work.
  - e) Organizational constraints are not needed as an input to the Request for Architecture Work

## **Major Output Descriptions**

- 41)The Architecture Development Method inputs and outputs continued.
- a) One of the outputs of the Statement of Architecture Work is the Architecture Vision
  - b) One of the outputs of the Statement of Architecture Work is a set of signature approvals
  - c) One of the outputs of the Business Architecture is the problem description
  - d) One of the outputs of the Business Architecture is the set of actors together with their roles and responsibilities
  - e) One of the outputs of the Business Architecture is the set of relevant business process descriptions.
- 42)The Architecture Development Method inputs and outputs continued.
- a) One of the outputs of the Technology Architecture is a set of Architecture Building Block models of views.
  - b) One of the outputs of the Technology Architecture is a set of assumptions
  - c) One of the outputs of the Technology Architecture is a description of the scope of the architecture
  - d) One of the outputs of the Technology Architecture is a set of conformance requirements
  - e) One of the outputs of the Technology Architecture is a set of architecture delivery and business metrics.

## **The Enterprise Continuum**

43)The Enterprise Continuum.

- a) The Enterprise Continuum is a virtual repository of all the architecture assets.
- b) The TRM is an example of an asset in the IT industry
- c) The Enterprise Continuum consists of two part: the Architecture Continuum and the Business Continuum
- d) The Integrated Information Infrastructure Reference Model is designed to help the realization of architectures that enable and support the Boundaryless Information Flow vision.
- e) The Architecture Continuum represents a structuring of re-usable architecture assets

## **The Architecture Continuum**

44)The Architecture Continuum

- a) The Architecture Continuum ranges from Foundation Architectures, through Common Systems Architectures and industry-specific architectures, to an enterprise's own individual architectures
- b) An example of a Foundation Architecture is a Security Architecture
- c) And example of a Common Systems Architecture is a Management Architecture
- d) The Technical Reference Model (TRM) and Standards Information Base (SIB) form a Foundation Architecture for the Open Group
- e) An example of a Common Systems Architecture is a Network Architecture

45)The Architecture Continuum continued.

- a) A typical example of an industry-specific component is the POSC data model
- b) Industry Architectures usually reflect requirements and standards specific to a vertical industry
- c) Industry Architectures usually provide guidelines for testing collections of systems
- d) Enterprise architectures are not relevant to the IT customer community
- e) The enterprise architecture guides the final customization of the solution

46)The Architecture Continuum continued.

- a) A populated Solutions Continuum can be regarded as a solutions inventory or re-use library
- b) The solution types within the Solutions Continuum are products and services, systems solutions, industry solutions, and enterprise solutions
- c) Products are the fundamental providers of capabilities
- d) An example of an industry solution is a security system product
- e) Computer systems vendors are the primary provider of systems solutions

47)The Architecture Continuum continued.

- a) An industry solution is an implementation of an Industry Architecture which provides re-usable packages of common components and services specific to an industry
- b) An example of an industry solution is a physical database schema
- c) An industry solution may include not only an implementation of the Industry Architecture but also other solution elements, such as specific products
- d) An enterprise solution is an implementation of the enterprise architecture that provides the required business functions
- e) The Enterprise Continuum should be interpreted as representing strictly chained relationships.

### **Foundation Architecture: Technical Reference Model**

48)The Foundation Architecture.

- a) The Technical Reference Model (TRM) provides a model and taxonomy of generic platform services
- b) The Standards Information Base (SIB) provides a database of standards that can be used to define services and other components
- c) The TRM is universally applicable and can be used to build any system architecture
- d) The list of standards and specifications in the SIB concentrates on technology-specific standards.
- e) Any TRM has two main components: a taxonomy, which defines terminology, and an associated TRM graphic



49)The Foundation Architecture continued.

- a) It is easy when developing an architecture framework to choose a TRM that works for everyone
- b) The TOGAF TRM was originally derived from the Technical Architecture Framework for Information Management (TAFIM) TRM.
- c) The TOGAF TRM aims to emphasize interoperability as well as portability
- d) The objective of the TRM is to enable structured definition of the standardized Application Platform and its associated interfaces
- e) Other architecture models are not recommended for use with TOGAF

50)The Foundation Architecture continued.

- a) The TRM has three parts (Application Software, Application Platform, and Communications Infrastructure) connected by two interfaces (Application Platform Interface and Communications Infrastructure Interface)
- b) The high-level TRM seeks to maximize Portability and Interoperability
- c) The high-level model seeks to reflect the increasingly important role of the Internet as the basis for inter- and intra-enterprise interoperability
- d) The horizontal dimension of the high-level model represents diversity.
- e) The shape of the model is intended to emphasize the importance of maximum diversity at the interface between the Application Platform and the Communications Infrastructure.

51)The TRM in Detail.

- a) All IT architectures derived from TOGAF should be very similar.
- b) The detailed TRM recognizes two categories of Application Software: Business and Infrastructure
- c) An example of a business application is a set of patient record management services used in the Medical industry.
- d) An example of a business application is a set of electronic mail client services
- e) An example of an infrastructure application is a set of calendar and scheduling services

52) The TRM in Detail Continued.

- a) The Application Platform in the TOGAF TRM is a single, generic, conceptual entity
- b) In the TOGAF TRM, the Application Platform contains all possible services
- c) Service bundles are represented in a Technology Architecture in the form of building blocks
- d) The IT architect must define the set of optimal Solution Building Blocks (SBBs)
- e) The set of services identified and defined for the Application Platform is likely to stay the same over time.

53) The TRM in Detail Continued.

- a) Services in the Application Platform may support each other
- b) A key goal of architecture development is for service modules to be replaceable
- c) Use of private interfaces among service modules facilitates substitution
- d) Private interfaces represent a risk that should be highlighted to facilitate future transition
- e) The TRM may be extended with new service categories as new technology appears.

54) The TRM in Detail Continued.

- a) The Communications Infrastructure provides the basic services to interconnect systems
- b) The Communications Infrastructure provides the basic mechanisms for opaque transfer of data
- c) The Communications Infrastructure is concerned with switches, service providers, and the physical transmission media
- d) The Internet is rarely used as the basis of a Communications Infrastructure for enterprise integration
- e) There is a steady increase in the range of applications linking to the network for distributed operation.

55)The TRM in Detail continued (the API)

- a) The interface between the Application Software and the underlying Application Platform is called the Application Platform Interface (API)
- b) For portability, the API definition must include the syntax and semantics of just the programmatic interface
- c) Portability depends on the symmetry of conformance of both applications and the platform to the architected API
- d) An application may use several API's
- e) An application may use different APIs for different implementations of the same service

56)The TRM in Detail continued (qualities)

- a) For management services to be effective manageability must be a pervasive quality of all platform services, applications, and Communications Infrastructure services.
- b) System-wide implementation of security requires not only a set of security services but also the support of software in other parts of the TRM
- c) Qualities are specified in detail during the development of a Target Architecture
- d) The four main service qualities presently identified in the TRM taxonomy are Availability, Assurance, Usability, and Adaptability
- e) The best way of making sure that qualities are not forgotten is to perform a gap analysis.

### **Foundation Architecture: Standards Information Base**

57)The SIB is a database of facts and guidance about information systems standards.

- a) The SIB has three main uses: Architecture Development, Acquisition/Procurement, and General Information
- b) The SIB can be used to dynamically generate lists of the standards endorsed by The Open Group for use in open systems architectures.
- c) The Open Group adds value to individual standards by integrating them into sets known as Product Standards
- d) The Open Group Product Standards are supported by a unique brand called the Open Brand
- e) Once a Program Group has recommended a standard, it is automatically included in the SIB.

## **Architecture Contracts**

58)Architecture Contracts.

- a) Architecture Contracts are joint agreements between development partners and sponsors on deliverables, quality, and fitness-for-purpose of an architecture
- b) Successful implementation of Architecture Contracts is delivered through effective architecture governance.
- c) Architecture Contracts may occur at various stages of the Architecture Development Method.
- d) The ultimate goal is a static enterprise architecture.
- e) There are three main types of Architecture Contract.

## **Architecture Governance**

59)The nature and levels of governance.

- a) Architecture governance is the practice and orientation by which enterprise architectures and other architectures are managed and controlled at an enterprise-wide level
- b) Corporate governance is a broad topic and is beyond the scope of TOGAF
- c) Governance is essentially about ensuring that business is conducted properly.
- d) The CORBA framework is an open standard for control over IT
- e) Phase G of the TOGAF ADM is dedicated to implementation governance

## **Architecture Principles**

60)Architecture principles.

- a) Principles are general rules and guidelines that inform and support the way in which an organization sets about fulfilling its mission.
- b) Principles may be established at any or all of three levels: Enterprise, Information Technology, and Architecture
- c) A good set of principles should be Understandable, Robust, Complete, Consistent and Stable
- d) The principle of Data Security implies that security needs must be identified and developed at the application level
- e) The principle of Technology Independence implies the use of standards which support portability

## **Building Blocks**

### **61) Building Blocks.**

- a) A building block is a package of functionality defined to meet the business needs across an organization
- b) A building block may interoperate with other, inter-dependent building blocks
- c) Architecture Building Blocks define what functionality will be implemented
- d) SBBs fulfill business requirements
- e) Solution Building Blocks (SBBs) must be procured rather than developed.

## **Other Architectures and Frameworks**

### **62) TOGAF is one of a number of architectures and architecture frameworks in use today. C4ISR is a framework developed by the US Department of Defense.**

- a) The acronym C4ISR stands for Command, Control, Computers, Communications (C4), Intelligence, Surveillance, and Reconnaissance (ISR)
- b) There is a lot of guidance in the C4ISR Architecture Framework concerning the process of describing an architecture
- c) C4ISR is used in order to ensure interoperable and cost-effective military systems
- d) C4ISR was a successor to the Technical Architecture Framework for Information Management (TAFIM) and has been replaced by DODAF.
- e) The sequence in which the products are built depends on the purpose of the architecture description

### **63) CORBA.**

- a) CORBA is an object-oriented Applications Architecture centered on the concept of an Object Request Broker (ORB)
- b) The ORB acts as a switching center
- c) The OMA is an application-level architecture which focuses exclusively on issues affecting distributed object-oriented systems
- d) CORBA services are a high-level set of common object services
- e) CORBA is not consistent with TOGAF

- 64)Enterprise Architecture Planning (EAP).
- a) EAP is a set of methods for planning the development of Information, Applications, and Technology Architectures.
  - b) The EAP methodology positions four types of architecture in the sequence: Business, Data, Applications, and Technology
  - c) EAP has a Foundation Architecture
  - d) EAP does not have a taxonomy of viewpoints and views
  - e) EAP has a Standards Information Base
- 65)Federal Enterprise Architecture: Practical Guide
- a) The purpose of this guide is to provide guidance to US federal agencies
  - b) This guide offers an end-to-end process to initiate, implement, and sustain an enterprise architecture program.
  - c) This guide focuses on enterprise architecture processes, products, and roles and responsibilities
  - d) The guide addresses how enterprise architecture processes fit within an overall enterprise lifecycle
  - e) The Practical Guide's enterprise architecture processes do not align closely with the lifecycle phases of the TOGAF ADM.
- 66)RM-ODP.
- a) RM-ODP provides a framework to support the development of standards for distributed processing in heterogeneous environments
  - b) RM-ODP uses an object modeling approach
  - c) RM-ODP has five viewpoints
  - d) TOGAF coverage is a subset of that provided by RM-ODP
  - e) The solution-level building blocks of TOGAF map to the Technology and Engineering viewpoints of RM-ODP
- 67)TAFIM.
- a) The US Department of Defense Technical Architecture Framework for Information Management (TAFIM) was used as the basis of TOGAF Version 1.
  - b) TAFIM was developed from the Guide to the POSIX Open System Environment
  - c) TAFIM and TOGAF have very little in common
  - d) The TOGAF Architecture Development Method (ADM) was originally based on parts of TAFIM
  - e) TAFIM has been superseded by C4ISR Architecture Framework (1999), JTA (1997), and the DoD 1999 Technical Reference Model (TRM)

68)The Zachman Framework

- a) The Zachman Framework is a framework providing a view of the subjects and models needed to develop a complete enterprise architecture
- b) Zachman based his framework on practices in traditional architecture and engineering
- c) The viewpoints that TOGAF recommends are all included in the Zachman Framework
- d) The Zachman Framework provides a very comprehensive and well-established taxonomy of the various viewpoints, models and other artifacts
- e) The Zachman Framework says nothing about the processes for developing viewpoints or conformant views.

## **Answers**

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|-----------|-----------|
| 1) FTTT   | 45) TTTFT |
| 2) TTTFT  | 46) TTTFT |
| 3) TTTTF  | 47) TTTTF |
| 4) TTFTF  | 48) TTTFT |
| 5) TFTFT  | 49) FTTTF |
| 6) TTFTF  | 50) TTTTF |
| 7) TTTTF  | 51) FTTFT |
| 8) TTTTF  | 52) TTTTF |
| 9) FTTTF  | 53) TTFTT |
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| 11) TTFTF | 55) TTTTF |
| 12) TTFTF | 56) TTTTF |
| 13) FTTTF | 57) TTTTF |
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