

Practice Exam Questions

THE *Open* GROUP



TOGAF 9 Part 2



EXAMKILLER

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The Open Group

Exam OG0-092

TOGAF 9 Part 2

Version: 9.0

[Total Questions: 75]

Question No : 1

Patterns & Co. is introducing a Commercial Off-the-Shelf (COTS) Market Analytics solution in order to improve its new delivery service.

Patterns & Co. has a mature enterprise architecture capability and the CIO is the sponsor of the enterprise architecture team. The business vision and requirements for the new system are defined. It includes a detailed business process analysis. The supplier has proposed a solution but the Architecture Board identified some of the project requirements not consistent with the adopted infrastructure standards. The CIO considered the risks and approved the implementation.

The CIO has asked the EA team to execute the Phase G ensuring that the system performance KPIs are respected, the project remains within budget and security guidelines are met.

Refer to the scenario above

As Lead Enterprise Architect you have to recommend a plan to implement the CIO decision. Choose the best answer according to TOGAF 9.

Choose one of the following answers

A. You ask the supplier to modify the web server hardware and software components so they can meet the current infrastructure standards. You advise to execute a proof of concept to anticipate any coding issue. Then, after the agreement with the development leads for supporting the development, you will provide the project plan to the project manager and develop an Architecture Contract. A set of frequent operational reviews to monitor the solution's performance is then scheduled after the implementation is completed.

B. You recommend the co-existence of a second web server standard and modify the company Standards Information Base adding this new technology. You ask the project architects to create an Architecture Contract with the development teams. You identify the need of a performance testing and a compliance review. You agree with the business on SLA and delivery dates. You identify re-usable procedures and objects.

C. You eliminate the non-standard web server from the solution as recommended by the Architecture Board. You create a revised plan and Architecture Contract for the development stressing the re-use of standard technologies. You share the budget implication of this solution with a finance committee and inform the CIO of the long term cost benefits of this choice. You define periodical project management meetings to monitor compliance.

D. You execute a risk analysis and set deliverables and timing requirements with the development team. You implement a detailed impact analysis of the chosen solution. You

create an Architecture Contract and ask for the CIO's approval before implementing it. You test the solution just prior to implementation and deliver the project artifacts and store after the completion of the implementation.

Answer: B

Question No : 2

Please read this scenario prior to answering the question

Worldwide Mobile is a mobile telecommunications company formed through a series of mergers and acquisitions. They are yet to fully integrate the customer service systems for the most recent acquisitions, and as result, customer service has been a major concern for the Chief Technology Officer.

Results for the last two quarters have shown that Average Revenue Per User (ARPU) and the customer retention (Churn) rate have fallen below the industry average. The Corporate Marketing group has published some new finding about customer satisfaction. The customers appear to be switching to Air Light, a competitor, because of superior customer service. WorldwideMobile actually has better coverage in nearly all markets than Air Light, and good roaming agreement that keep rates low for business travellers. But customer satisfaction has remained low.

The Business Strategy group and the Enterprise Architecture group have conducted a high-level project to develop the enterprise-wide strategic plan. They have developed a business scenario which contains a good conceptual model of what needs to be done and also identifies the key requirements. This was used in preparing the proposal presented to the Executive Council and the Corporate Board.

The planning for the program has been underway for several months. WorldwideMobile has selected TOGAF 9 as the basis for its Enterprise Architecture.

The Corporate Board has approved funding for a multi-million Euro conversion to transition to a packaged Customer Service System. It is anticipated that the overall program will take five years to complete, but there are some tactical projects that can commence immediately to address the situation. The Executive Council has stated that the program should define specific initiatives to enable each regional business units to create an implementation of the Customer Service System. The implementation must meet the needs of the business unit and still provide the information needed to enable major improvements to the customer.

Refer to WorldwideMobile-2 Scenario

You are serving as the Lead Architect for the Performance and Integrity project of the Customer Service System program.

The project has been chartered to address the architecture(s) required to support the Customer Service System from an infrastructure perspective. At present time, the project team is conducting an architecture development project that is focused on the customer self service capability, which was defined as part of the earlier strategic planning activities. This capability will enable customers to access their accounts, pay bills, request account reviews, and provision services from any web-enabled device.

The project team has gathered information about the self-service capability, developed a business scenario, and used the results to define an Architecture Vision for achieving the capability.

You have been asked to recommend the course of action to complete the project.

Based on TOGAF 9, which of the following is best answer?

- A.** In the remaining architecture definition phases, the project team should map out the capability in the Technology domain. In the Phases E and F, the capability should be broken down into a set of Solution Building Blocks that define the Target Architecture. Where possible, the Solution Building Blocks should be drawn from the Architecture Repository. The completed Architecture Definition Document and the Implementation and Migration Plan will be submitted for approval. Upon approval, the architecture team will conduct Compliance Assessments to ensure that the Target Architecture is properly implemented.
- B.** In the remaining architecture definition phases, the project team should map out the capability across the Business, Information System and Technology domains. In the Phases E and F, the capability should be broken down into a set of increments that are sequenced into Transition Architectures that will lead to the realization of the Target Architecture. The resulting Solution Building Blocks will then provide the basis for the capability increment solutions. The complete Architecture Definition Document and the Implementation and Migration Plan will be submitted for approval. Upon approval, the architecture team will oversee the implementation process through monitoring Architecture Contracts and by conduction Compliance Assessments.
- C.** In the remaining architecture definition phases, the project team should map out the capability across the Business, Information System and Technology domains. In the Phases E and F, the capability should be broken down into a set of increments that defines the Target Architecture. The Solution Building Blocks will provide the basis for the capability increment solutions. The complete Architecture Definition Document and the Implementation and Migration Plan will be submitted for approval. Upon approval, the architecture team will oversee the implementation process through monitoring Architecture Contracts and by conducting Compliance Assessments.
- D.** The remaining architecture definition work should be focused on mapping out the technology and infrastructure capability in the Technology domain. In Phases E and F, the

capability should be broken down into a set of Solution Building Blocks that will be implemented to realize the Target Architecture. The Solution Building Blocks will provide the basis for the completed Architecture Definition Document that will be submitted for approval. Upon approval, the implementation team will conduct Compliance Assessments to ensure that the self-service capability is compliant with the overall Enterprise Architecture.

Answer: B

Question No : 3

Scenario: Marona Inc.

Marona Inc is a Fortune 500 Enterprise in the retail industry with retail store components manufacturing units and marketing outlets spanning the globe and having an annual turnover of 20 billion\$ with more than 100, 000 employees world wide.

The CEO, CIO and the stakeholders of the ongoing EA projects are concerned about rising costs and as one measure want to do an investigation into the operational aspects of the realized Enterprise Architecture using TOGAF9.

The CIO approaches you as the Lead Enterprise Architect to carry out this exercise the stakeholder had voiced to him the following concerns:

They want to analyze the roles of the top management for each revenue earning service. Moreover, many of the HR related critical Search application component have become extremely slow. This needs to be diagnosed and rectified. Moreover there is no proper tracking of revenue from retail store component products over time. There has also been a lot of unauthorized or unwanted access to many of the critical information.

Hence the mode of access needs to be strengthened and made much more secure. Another additional concern is the new launches and the progress of each of the launches over time.

Determine which of the following set of viewpoints are most appropriate to analyze and view in order to address this concern of the stakeholders.

- A.** (i) System/Functions Matrix(ii) Actor/Role Matrix(iii) Data Entity/Business Function Matrix(iv) Technology Portfolio Catalog(v) Data Security Diagram
- B.** (i) Goal/Objective/Service Diagram(ii) Contract Measure Catalog(iii) Data Dissemination Diagram(iv) Application Communication Diagram(v) Data Life Cycle Diagram
- C.** (i) Location Catalog(ii) Service/Function Catalog(iii) Data Entity/Business Function

Matrix(iv) Application Communication Diagram

D. (i) System/Functions Catalog(ii) System/Technology Matrix(iii) Goal/Objective/Service Diagram(iv) Product Life Cycle Diagram(v) Data Security Diagram

Answer: D

Question No : 4

Scenario

Please read this scenario prior to answering the question

You have been assigned the role of Lead Enterprise Architect for a firm that produces components and replacement parts for the automobile, electronics, and telecommunications industries. The firm has been established for over 70 years. North America has been the primary market for its products, with just 20% of its output being exported to Europe. The firm is planning to expand its exports to Europe and also to establish sales in South America and the Asia Pacific region.

The firm is organized into business units that each focus on the different industry sectors. Each business unit has acquired other producers to expand its manufacturing capacity. This has resulted in a complex environment with a high diversity of business and manufacturing systems.

The Enterprise Architecture (EA) program within the firm has been functioning for several years.

It has made significant progress in consolidating the technology portfolio and establishing key standards. The CIO and the COO are joint sponsors of the EA program. The EA program is mature, with an active Architecture Board and a well-defined architecture process and standard content templates based on the TOGAF 9 Architecture Content Framework. The EA process framework is well coordinated with the PMO, Systems Development, and Operations functions.

The firm has completed a strategic plan to reorganize its Sales & Marketing organization according to the target geographic markets. One of the goals of this reorganization is to improve the ability of Marketing to collect more meaningful market analytics that will enable each sector to better address market needs with effective marketing campaigns and global product presence.

A Request for Architecture Work to address the goals of the reorganization has been

approved. As the architecture team commences its work, the CIO has expressed concerns about whether the firm will be able to adapt to the proposed change and how to manage the associated risks.

Refer to the Scenario

You have been asked how to address the concerns of the CIO.

Based on TOGAF, which of the following is the best answer?

- A.** In Phase B, the team should create a set of views that will enable them to identify the factors that will influence the reorganization. There should then be an assessment of each factor on a maturity scale that will allow the team to gauge the urgency, readiness, and degree of difficulty to fix. These factors can then be used to assess the initial risks associated with the proposed project.
- B.** In Phase A, the team should analyze their risk by completing an Implementation Factor Assessment and Deduction Matrix to identify the particular risks associated with the implementation and deployment. The matrix should include a list of factors to be considered, their descriptions, and constraints that should be taken into account. These factors can then used to assess the initial risks associated with the proposed project.
- C.** In Phase A, the team should use the Business Transformation Readiness Assessment technique to identify the factors that will influence the reorganization. The assessment should include determining the readiness rating for each factor based on a maturity scale that will allow the team to gauge the urgency, readiness, and degree of difficulty to fix. These factors can then used to assess the initial risks associated with the proposed project.
- D.** In Phase A, the team should conduct a Business Scenario to identify the stakeholders1 concerns and the resulting requirements. Once the requirements have been identified, they can be assessed in terms of their risks. The risks should be evaluated in terms of how they could be avoided, transferred, or mitigated. Any risks that cannot be resolved should be identified as residual risks and their disposition should be decided by the Architecture Board.

Answer: C

Question No : 5

UTrack Transports is a strong UK logistics company. The head of the strategic marketing division engaged the Principal Architect issuing a Request for architectural work to design an enhancement of the current Enterprise Data Warehouse system. An enhancement is needed to support the change in the business model; UTrack wants to leverage on customer data collected during business as usual activities and anonymize them to offer

marketing agencies a fresh and accessible source of analytics data, this will increase the company revenues.

TOGAF 9 is the architectural framework in use.

Refer to the scenario above The Principal Architect has decided to ask you as Business Intelligence Subject Matter Expert to design the Data Architecture. The Chief Architect shared with you the Architecture Definition Document including the Business Architecture design. You now need to choose the artifacts you want to produce as part of the Data Architecture design. Identify the best answer accordingly to the TOGAF 9.

Choose one of the following answers

- A.** You first list the data used across the enterprise using a Data Entity/Data Component Catalog, including data entities and also the data components where data entities are stored. You then classify what the data source are and the relationship with the data entities via a System/Data Matrix. You finally identify common data requirements using a Data Lifecycle Diagram.
- B.** You first list the data used across the enterprise using a Data Entity/Data Component Matrix, including data entities and also the data components where data entities are stored. You then classify what the data source are and the relationship with the data entities via a Role/System Catalog. You finally identify common data requirements using a Data Use Case Diagram.
- C.** You first list the data used across the enterprise using a Data Entity/Data Component Catalog, including data entities and also the data components where data entities are stored. You then classify what the data source are and the relationship with the data entities via a System/Data Matrix.
- D.** You first list the data used across the enterprise using a Data Entity/Data Component Catalog, including data entities and also the data components where data entities are stored. You then assign ownership of data entities to the organization via a System/Data Matrix.

Answer: A

Question No : 6

RIG Networks, a global network supplier is implementing a massive replacement of its supply chain to reduce production cost of their new LTE (Long Term Evolution) gateways. As part of this renovation process the CIO decided to replace their ERP (Enterprise Resource Planning) system using a greenfield approach (where the legacy ERP system will be decommissioned). The CIO engaged a team of TOGAF 9 certified consultants to design the solution, he then identified the suppliers and asked you as Chief Architect to

supervise the definition of the Architecture Design and Development Contract.

Refer to the scenario above

You now need to write the Architecture Design and Development Contract, identify how you would do this following TOGAF 9.

Choose one of the following answers

- A.** You would define the Architecture Design and Development Contract with : introduction and background, the nature of the agreement, scope of the architecture, architecture and strategic principles and requirements, conformance requirements, Target Architecture Measures, Define phases of deliverables, Prioritized joint workplan, Time window, Architecture delivery and business metrics.
- B.** You would define the Architecture Design and Development Contract with : introduction and background, the nature of the agreement, scope of the architecture, architecture and strategic principles and requirements, conformance requirements, Baseline Architecture definition, Target Architecture Measures, Define phases of deliverables, Prioritized joint workplan, Time window, Architecture delivery and business metrics.
- C.** You would define the Architecture Design and Development Contract with : Target Architecture Measures, Define phases of deliverables, Prioritized joint workplan, Time window, Architecture delivery and business metrics.
- D.** You would define the Architecture Design and Development Contract with : scope, goals, objectives and constraints, Architecture Principles, Baseline Architecture, Architecture Models, Gap Analysis, Impact Assessment.

Answer: A

Question No : 7

You are serving as an Enterprise Architect at a large aerospace company. It designs, manufactures and sells civil and military aviation products worldwide and manufactures in multiple countries both inside and outside of the European Union. The company has grown rapidly by acquisition and has inherited numerous different procurement processes and related IT systems.

Recently, several procurement processes, within the civil aviation business, have had problems related to the timing of purchases, which has led to excess inventory. The Vice President in charge of Supply Chain Management has made the decision to consolidate and reduce redundant procurement processes and systems. He has committed to the CEO that the business will move to a "Just-in-time" procurement system so as to keep inventory

costs low.

The TOGAF standard is used for internal Enterprise Architecture activities. At presents, there are no architectural assets in the Architecture Repository related to this initiative. All assets will need to be acquired, customized, or created from scratch. The company prefers to implement commercial off the shelf package applications with little customization. The CIO, who is the project sponsor, has stated that she is not concerned about preserving the existing procurement processes or systems.

This project is using an iterative approach for executing the Architecture Development Method (ADM). The architecture development project has completed the

Architecture Vision Phase and has started a number of iteration cycles to develop the Architecture. As a packaged application is being considered, the next iteration will include both the Business and Application Architectures.

Stakeholder concerns that should be addressed by these architectures include:

1. What groups of people should be involved in procurement-related business processes?
2. What applications will these groups use once the architecture development is complete?
3. What non-procurement applications will need to be integrated with the new procurement applications?
4. What are the dependencies between the non-procurement and the new procurement applications?

[Note: You may need to refer to the Architectural Artifacts chapter, section 31.6 (located in Part IV) within the reference text in order to answer this question.]

You have been asked to identify the most appropriate catalogs, matrices, and diagrams to support the next iteration of Architecture development.

Based on the TOGAF Standard, Version 9.2, which of the following is the best answer?

- A.** You would describe the Baseline Business Architecture with an Organization/Actor catalog, a Business Service/Function catalog, and a Data Entity/Business Function matrix. You would describe the Baseline Application Architecture with an Application Portfolio catalog and an Application/Function matrix.
- B.** You would describe the Target Business Architecture with a Business Service/Function catalog, an Organization/Actor catalog, and Data Lifecycle diagrams. You would describe the Target Application Architecture with Application Communication diagrams, an Application Interaction matrix, and an Application Portfolio catalog.
- C.** You would describe the Target Business Architecture with a Business Interaction matrix, and a Business Service/Function catalog. You would describe the Target Application Architecture with an Application Communication diagram, an Application/Organization matrix, an Application Interaction matrix and an Interface catalog.
- D.** You would describe the Baseline Business Architecture with a Baseline Business

Process catalog, and an Object lifecycle catalog. You would describe the Baseline Application Architecture with an Interface catalog and a Technology Portfolio catalog.

Answer: B

Question No : 8

Scenario:

Please read this scenario prior to answering the Question

You are serving as the Lead Architect for the enterprise architecture team at the prime contractor for the Dreadnought Unmanned Aircraft System program.

Over the course of this contract, the company has grown rapidly by acquisition and has inherited numerous different procurement processes and related IT systems. The decision has been made to consolidate and reduce redundant procurement processes and systems. The CEO has announced that the company will seek to leverage higher volume discounts and lower related IT support costs by instituting a preferred supplier program.

TOGAF 9 Is used for internal Enterprise Architecture activities, with an iterative approach for executing Architecture Development Method (ADM) projects.

At present, there are no particularly useful architectural assets related to this initiative, so all assets need to be acquired and customized or created from scratch. The company prefers to implement commercial off the shelf package applications with little customization. The CIO, who is the project sponsor, has stated that she is not concerned about preserving existing processes or systems.

The architect-re development project has put in place Its Architecture Capability for this project and has started a number of iteration cycles to develop the Architecture. Some tasks to address concerns related to the Business Architecture have been completed. The next immediate task is to address the Information Systems Architectures.

The Information Systems Architectures must address stakeholder concerns such as:

1. Which procurement-related business processes are supported by zero, one, or many existing applications?
2. What non-procurement applications will need to be integrated with any new procurement applications?

3. What data will need to be shared?

Refer to the Scenario

[Note: You may need to refer to TOGAF 9 Chapter 35 in order to answer this question.]

You have been asked to identify the most appropriate catalogs, matrices, and diagrams for this situation.

Based on TOGAF 9, which of the following is the best answer?

- A.** in the early iterations of Architecture development, you would describe the Baseline Application Architecture with a System/Function matrix, and describe the Baseline Data Architecture using a Data Entity/Data Component catalog. In the later Iterations of the Architecture Definition, you would describe the Target Application Architecture using Application Communication diagrams and an Application Interaction matrix, and describe the Target Data Architecture with a System/Data matrix.
- B.** In the early iterations of Architecture development, you would describe the Target Application Architecture with Application Communication diagrams and an Application Interaction matrix, and describe the Target Data Architecture with a System/Data matrix. In the later iterations of Architecture development, you would describe the Baseline Application Architecture with an Application and User Location diagram and a System/Function matrix, and describe the Baseline Data Architecture with a Data Entity/Data Component catalog.
- C.** In the early iterations of Architecture development, you would describe the Target Application Architecture with Application Communication diagrams and an Application Interaction matrix, and describe the Target Data Architecture with a Data Entity/Business Function matrix and a System/Data matrix. In the later iterations of Architecture development, you would describe the Baseline Application Architecture with a System/Function matrix, and describe the Baseline Data Architecture with a Data Entity/Data Component catalog.
- D.** In the early iterations of Architecture development, you would describe the Baseline Application Architecture with a Technology Portfolio catalog, and describe the Baseline Data Architecture with a Data diagram. In the later iterations of Architecture development, you would describe the Target Application Architecture with a System/Technology matrix, and describe the Target Data Architecture with a Data Dissemination diagram.

Answer: C

Scenario

Please read this scenario prior to answering the question

You are serving as the Lead Architect for an insurance company, which has been formed through the merger of three previously independent companies. The company now consists of three divisions with the same names and division headquarters as their predecessors.

The lack of integration between the three divisions has increasingly caused problems in the handling of customer and financial information. The inability to share information has resulted in lost opportunities to "leverage the synergies" that had been intended when the company was formed. At present, each division maintains its own applications. Despite an earlier initiative to install a common application to manage customer, products, and claims information, each division has different ways of defining these core elements and has customized the common application to the point where the ability to exchange information is difficult, costly, and error-prone.

As a result, the company has made the decision to introduce a common web portal, contact center software suite, and document management system. Also the company has selected a single enterprise-wide customer relationship management (CRM) application to consolidate information from several applications that exist across the divisions. The application will be used by each of the divisions and accessed by third party partners through well defined interfaces.

The Corporate Board is concerned that the new application must be able to manage and safeguard confidential customer information in a secure manner that meets or exceeds the legal requirements of the countries in which the company operates. This will be an increasingly important capability as the company expands its online services in cooperation with its partners.

The CIO has formed an Enterprise Architecture department, and one of the primary goals in its charter is to coordinate efforts between the implementation team and the migration teams in each division. The CIO has also formed a cross-functional Architecture Board to oversee and govern the architecture. The company has an existing team of security architects.

TOGAF 9 has been selected as the core framework for use for the Enterprise Architecture program. The CIO has endorsed this choice with the full support of top management.

Refer to the Scenario

In the Preliminary Phase you need to define suitable policies and ensure that the company has the appropriate capability to address the concerns of the Corporate Board.

Based on TOGAF, which of the following is the best answer?

A. You evaluate the implications of the concerns raised by the Corporate Board in terms of regulatory requirements and their impact on business goals and objectives. Based on this understanding, you then issue a Request for Architecture Work to commence an architecture development project to develop a solution that will address the concerns. You allocate a security architect to oversee the implementation of the new application that is being developed.

B. You start by clarifying the intent that the Board has for raising these concerns. This enables you to understand the implications of the concerns in terms of regulatory requirements and the potential impact on current business goals and objectives. You propose that a security architect or security architecture team be allocated to develop a comprehensive security architecture and that this be considered an additional domain architecture.

C. You evaluate the implications of the Board's concerns by examining the security and regulatory impacts on business goals, business drivers and objectives. Based on your understanding, you then update the current security policy to include an emphasis on the concerns. You define architecture principles to form constraints on the architecture work to be undertaken in the project. You then allocate a security architect to ensure that security considerations are included in the architecture planning for all domains.

D. You identify and document the security and regulatory requirements for the application and the data being collected. You ensure that written policies are put in place to address the requirements, and that they are communicated across the organization, together with appropriate training for key employees. You identify constraints on the architecture and communicate those to the architecture team. You establish an agreement with the security architects defining their role within the ongoing architecture project.

Answer: C

Question No : 10

Scenario: Rollins Manufacturing

Please read this scenario prior to answering the question

Rollins Manufacturing is a major supplier in the automotive industry, headquartered in Cleveland, Ohio with manufacturing plants in Chicago, Sao Paulo, Stuttgart, Yokohama, and Seoul. Each of these plants has been operating its own Manufacturing Requirements Planning (MRPII) system, production scheduling, and custom developed applications that

drive the automated production equipment at each plant.

Rollins is implementing lean manufacturing principles to minimize waste and improve the efficiency of all of its production operations. During a recent exercise held for internal quality improvement, it was determined that a significant reduction in process waste could be achieved by replacing the current MRPII and scheduling systems with a common Enterprise Resource Planning (ERP) system located in the Cleveland data center. This central system would provide support to each of the plants replacing the functionality in the existing systems. It would also eliminate the need for full data centers at each of the plant facilities. A reduced number of IT staff could support the remaining applications. In some cases, a third-party contractor could provide those staff.

The Rollins Enterprise Architecture department has been operating for several years and has mature, well-developed architecture governance and development processes that are strongly based on TOGAF 9. At a recent meeting, the Architecture Review Board approved a Request for Architecture Work from the Chief Engineer of Global Manufacturing Operations who is the project sponsor. The request covered the initial architectural investigations and the development of a comprehensive architecture to plan the transformation.

The Common ERP Deployment architecture project team has now been formed, and the project team has been asked to develop an Architecture Vision that will achieve the desired outcomes and benefits. Some of the plant managers have expressed concern about the security and reliability of driving their MRPII and production scheduling from a central system located in Cleveland. The Chief Engineer wants to know how these concerns can be addressed.

Refer to the Rollins Manufacturing Scenario

You are serving as the Lead Enterprise Architect of the newly-formed Common ERP Deployment architecture project team.

As the Common ERP Deployment architecture project team assembles for its initial meeting, many of the participants have voiced concerns about the sweeping scope of the initiative. Others are confident that they know a solution that will work. During the meeting, a number of alternative recommendations for how to proceed are put forward by members of the team.

You have been asked to select the most appropriate recommendation to ensure that the team evaluates different approaches to the problem and clarifies the requirements for the architecture.

Based on TOGAF 9, which of the following is the best answer?

- A.** The team should hold a series of interviews at each of the manufacturing plants using the business scenario technique. This will then enable them to identify and document the characteristics of the architecture from the business requirements.
- B.** The team should exercise due diligence and carefully research vendor literature and conduct a series of briefings with vendors that are on the current approved supplier list. Based on the findings from the research, the team should define a preliminary target Architecture Vision. The team should then use that model to build consensus among the key stakeholders.
- C.** The team should create Baseline and Target Architectures for each of the manufacturing plants. A gap analysis between the architectures will then validate the approach, and determine the Transition Architecture needed to achieve the target state.
- D.** The team should conduct a pilot project that will enable vendors on the short list to demonstrate potential solutions that will address the concerns of the stakeholders. Based on the findings of that pilot project, a complete set of requirements can be developed that will arrive the evolution of the architecture.

Answer: A

Question No : 11

Scenario: Raxlon Inc.

Case Study Title (Case Study):

Raxlon Inc. is a Fortune 500 Company dealing in high value drugs and pharma products. Its annual turnover is over 120 billion \$. It has more than 100,000 employees all over the globe in its R&D, Manufacturing and Marketing Units.

Raxlon's CEO, Dr Peter Fowles, is a pharmacology expert and has over 72 patents on various types of drugs mainly used for treating patients with genetic disorders. Raxlon is now moving into a suite of high end critical drug products used for Genetic Repair of congenital Diseases like Alzhmeir's disease and Epilepsy. Rexlon has a well developed EA practice and in 2009 the EA practice has adopted TOGAF 9 as the primary Framework for Enterprise Architectural Change Agent.

Dr Fowles' main concerns are:

Security of the critical data which they have gained over the years after painstaking research. Although Rexlon had an adequate security system Dr Fowles feels it may not be adequate to deal with the new order of things, especially with data which is highly

confidential and if leaked would have major financial impact on the Company.

Dr Fowles calls his CIO and explains his position to him and entrusts him with the responsibility of evaluating the current security system, operation and governance and determine which are the gaps which need to be addressed during the fresh architectural work. Assume that a new Security Framework would be used in the ADM life cycle. To protect Rexlon's valuable IP.

The CIO apprises the Lead Architect of the sensitive nature of the work he has to complete within the next 2 months.

Identify which of the following processes would be most appropriate for the Lead Architect to adopt in this situation.

A. Identify the sources of threat, review the relevant security statutes, see how disaster recovery can be achieved, find who are the actors vis vis the system and design suitable access control mechanisms, identify critical data and applications and ensure that they are given the highest level of security

B. First revisit the Preliminary Phase to determine the tailoring of ADM vis a vis Security. Identify any change in the Principles or additions to be carried out. Engage with all Stakeholders to finalize the Vision. Then in Business, Information systems and Technology Architectures ensure the Security Framework adopted to the ADM addresses all critical security issues. Finally conduct an overall review to assess how effective the security ecosystem designed is and whether it meets the security level desired

C. Invoke Preliminary Phase and Vision Phase Identify Sources of threat, review and determine revised regulatory, security and assumptions, document them get management buy in , develop business continuity plans especially for critical data operations, assure data, application and technological component security.

D. Determine who are the people who are hacking into similar organizations, ensure that highly secure measures are taken when external people enter the R&D and manufacturing locations, ensure that there is a very strong firewall so that people cannot get illicit entry into the system, periodically check the effectiveness of the security measures

Answer: A

Question No : 12

Scenario: AGEX Inc.

Please read this scenario prior to answering the question

AGEX is a large, global commodities trading company which has been growing rapidly

through a series of acquisitions.

Each new business is performing well in its markets. However, the lack of integration between headquarters and the business units has increasingly caused problems in the handling of customer and financial information. The inability to share information across businesses has resulted in lost opportunities to "leverage the synergies" that had been intended when the businesses were acquired. At present, each business unit maintains its own applications. Despite an earlier initiative to install a common application to manage customer, products, supplier, and inventory information, each business unit has different ways of defining each of these core elements and has customized the common application to the point where the ability to exchange information is difficult, costly, and error-prone.

As a result, AGEX has begun implementing a single Enterprise Resource Planning (ERP) system to consolidate information from several applications that exist across the lines of business. The Corporate Board is concerned that the new ERP system must be able to manage and safeguard customer information in a manner that meets or exceeds the legal requirements of the countries in which the company operates. This will be an increasingly important capability as the company expands its online services offered to clients and trading partners.

The CIO has formed an Enterprise Architecture department, and one of the primary goals in its charter is to coordinate efforts between the ERP implementation team and the business unit personnel who will be involved in the migration process. The CIO has also formed a cross-functional Architecture Review Board to oversee and govern the architecture.

After reviewing the available alternatives, and based on recommendations from the ERP vendor, AGEX has selected TOGAF 9 as the basis for its Enterprise Architecture program.

The CIO has endorsed this choice with the full support of top management.

Refer to the AGEX Inc. Scenario

You are serving as the Chief Architect.

As part of the process for establishing the Enterprise Architecture department, you have decided to create a set of principles to guide the activities.

You have been asked to recommend the best approach for this work.

Based on TOGAF 9, which of the following is the best answer?

- A.** You define a set of principles that support the preferred best practices embodied in the Enterprise Architecture department charter. You publish the principles on the corporate intranet to ensure widespread acceptance and compliance. You then schedule regular periodic Compliance Assessments with individual business units to check that they have made satisfactory progress toward meeting the objectives and conditions embodied in the principles.
- B.** You gather information from credible industry sources in the commodities business. Based on that, you assess current trends and apply that to defining a set of principles that embody best practices. You select architecture principles that do not conflict with each other and that should be stable. You ensure that all the principles are realistic and avoid including principles that are obvious.
- C.** You examine the mission statements for AGEX and each of its businesses, together with the corporate value statements. Based on that, you define a set of principles and review with the CIO. When developing the principles you ensure that they actively promote the alignment of IT with the business strategies and initiatives of AGEX. You then seek the endorsement of the CIO and senior management.
- D.** You examine the mission statements for AGEX and each of its businesses, together with the corporate value statements. Based on that, you work with the Architecture Review Board to define the principles. When developing the principles you ensure that they actively promote the alignment of IT with the AGEX business strategies. You then run a series of reviews with all the relevant stakeholders, including senior management, ensuring their support.

Answer: D

Question No : 13

Scenario:

Please read this scenario prior to answering the Question

You have been appointed as a consultant to the Lead Enterprise Architect of an international agricultural company that exports bulbs, flowers and seeds worldwide. The company has its headquarters in the Netherlands, and has sales and distribution centers in over 30 countries worldwide. Several of these centers include administrative, manufacturing, and research facilities.

To achieve full integration of their research capabilities with their development centers located in various climate zones, the company wants to develop strong self-directed teams in each location. It also wants to define new business models that are profitable while reducing their impact on the environment. The management team is deeply committed to ensuring that the company is a world leader in socially responsible seed development with a business strategy that focuses on profitability through environmentally friendly operating

processes.

The international operations of the company are subject to legal and regulatory requirements for each country where they operate. The production of genetically modified seeds has governmental controls that are strictly enforced and compliance is critical. Recently a competitor was heavily fined for violating the regulations in a country where it was developing pest-resistant seeds.

The Governing Board is concerned about the risks posed in this complex global environment, and as a result has approved the expenditure of resources to establish an Enterprise Architecture program. They have requested to be informed about the status of projects that could impact regulatory compliance. They also want to enable the corporate legal staff and auditors to analyze proposed architectures to ensure that they are within the legal guidelines for a given location. In addition, the research organization should be able to see that the architecture is appropriate for its needs.

TOGAF 9 has been mandated as the framework for the development and evolution of the Enterprise Architecture practice. The Preliminary Phase has been completed to establish the enterprise architecture capability for this project.

Refer to the Scenario

You have been asked to recommend an approach that would enable the development of an architecture that addresses the needs of the Governing Board, legal staff, auditors and the research organization.

Based on TOGAF 9, which of the following is the best answer?

- A.** You recommend that each project architecture activity is developed using a consistent modeling approach that is uniform across all architecture projects. Each architecture should be defined based on this fixed set of models so that all concerned parties can examine the models to ensure that their issues and concerns have been addressed.
- B.** You recommend that a special report be created for those groups that have sufficient power and level of interest. This report should summarize the key features of the architecture with respect to the particular location. Each of these reports should reflect the stakeholders' requirements.
- C.** You recommend that a set of models be created for each project architecture that can be used to ensure that the system will be compliant with the local regulations. Stakeholders should then view the models to verify that their concerns have been properly addressed.
- D.** You recommend that a stakeholder map be developed. This will allow the architects to define groups of stakeholders that share common concerns. A set of views should be defined to address the concerns for each group of stakeholders. Architecture models should then be created for each view to address the stakeholders' concerns.

Answer: C

Question No : 14

Your role is that of the Lead Enterprise Architect at a multinational automotive corporation. The company is headquartered in Germany, and manufactures cars, trucks and buses. It has manufacturing plants across North America, South America, Europe and Asia. Each of these plants has been operating its own planning and production scheduling systems, as well as custom developed applications that drive the automated production equipment at each plant.

The company has an ongoing initiative to improve the efficiency of all of its production operations, and in particular to reduce its carbon footprint. During a recent exercise held for internal quality improvement, it was determined that a significant reduction in energy usage could be achieved by replacing the current planning and scheduling systems with a common Enterprise Resource Planning (ERP) system located in one central data center. This central system would provide support to each of the plants replacing the functionality in the existing systems. It would also eliminate the need for full data centers at each of the plant facilities.

The Enterprise Architecture department has been operating for several years and has mature, well-developed architecture governance and development processes that are based on the TOGAF standard. At a recent meeting, the Architecture Board approved a Request for Architecture Work sponsored by the global

CIO. The request covered the initial architectural investigations and the development of a comprehensive architecture to plan the transformation.

You have been asked to select the most appropriate recommendation to ensure that the team evaluated different approaches to the problem and clarifies the requirements for the architecture.

Based on the TOGAF standard, which of the following is the best answer?

- A.** The team should identify the individuals and groups within the organization who will contribute to the project, in order to understand who has concerns about the initiative. The team should then hold a series of interviews at each of the manufacturing plants using the business scenario technique. This will then enable them to identify and document the key high-level stakeholder requirements for the architecture.
- B.** The team should exercise due diligence and carefully research vendor literature and conduct a series of briefings with vendors that are on the current approved supplier list. Based on the findings from the research, the team should define a preliminary Architecture Vision. The team should then use that model to build concerns among the key stakeholders.

C. The team should perform a shallow architecture development iteration, developing Baseline and Target Architectures for each of the manufacturing plants. This should include development of a set of views corresponding to selected viewpoints that address key concerns of the stakeholders. A consolidated gap analysis between the architectures will then be used to validate the approach, and determine the capability increments needed to achieve the target state.

D. The team should utilize its approved supplier list, and conduct a pilot project that will enable those suppliers to demonstrate potential solutions that will address the concerns of the stakeholders. Based on the findings of that pilot project, a complete set of requirements will be developed that will drive the evolution of the architecture.

Answer: A

Question No : 15

Scenario

Please read this scenario prior to answering the question

You have been assigned the role of Chief Enterprise Architect within a leading outsourcing services company. The company has over 20,000 outsourcing professionals and works on some of the world's largest outsourcing projects. Outsourcing services include business processes, infrastructure, and service management. The company also provides business consulting services.

With numerous service areas and a large number of diverse engagements in progress at any given time, overall engagement management within the company has become challenging. The company does not want to risk its outstanding reputation or its international certifications and CMM ratings.

The company has an established an Enterprise Architecture program based on TOGAF 9, sponsored jointly by the Chief Executive Officer and Chief Information Officer. An Architecture Board has been formed comprised of IT staff executives and executives from the major service areas and consulting practice.

The Enterprise Architecture (EA) team has been working with the Strategic Planning team to create a strategic enterprise architecture to address these issues. The EA team has defined a framework and held workshops with key stakeholders to define a set of architecture principles to govern the architecture work. They have completed an Architecture Vision at a strategic level and laid out Architecture Definitions for the four domains. They have set out an ambitious vision of the future of the company over a five-

year period. This includes a solution architecture including three distinct transformations.

The CIO has made it clear that prior to the approval of the detailed implementation and Migration plan, the EA team will need to assess the risks associated with the proposed architecture. He has received concerns from some of the vice presidents across the company that the proposed architecture may be too ambitious and they are not sure it can produce sufficient value to warrant the attendant risks.

Refer to the Scenario

You have been asked to recommend an approach to satisfy these concerns.

Based on TOGAF, which of the following is the best answer?

- A.** The EA team should gather information about potential solutions from the appropriate sources. Once the Solution Architecture has been assembled; it should be analyzed using a state evolution table to determine the Transition Architectures. A value realization process should then be established to ensure that the concerns raised are addressed.
- B.** Before preparing the detailed Implementation and Migration plan, the EA team should review and consolidate the gap analysis results from Phases B to D to understand the transformations that are required to achieve the proposed Target Architecture. The EA team should then assess the readiness of the organization to undergo change. Once the Solution Architecture has been assembled, it should be analyzed using a state evolution table to determine the Transition Architectures.
- C.** The EA team should apply an interoperability analysis to evaluate any potential issues across the Solution Architecture. This should include the development of a matrix showing the interoperability requirements. Once all of the concerns have been resolved, the EA team should finalize the Architecture Roadmap and the Implementation and Migration Plan.
- D.** The EA team should apply the Business Transformation Readiness Assessment technique. This will allow the risks associated with the transformations to be identified and mitigated for. It will also identify improvement actions to be worked into the Implementation and Migration Plan. The Business Value Assessment technique should then be used to determine the business value and associated risks for the transformation.

Answer: D

Question No : 16

Chiamin Metals is a leading world-wide manufacturer for continuous casting and bottom pouring powders. In addition to mould powders, the company also produces cored wire for secondary metallurgy. Chiamin Metals offers a variety of products and uses a paper-based

catalog to sponsor them. A new CIO has joined the enterprise and has set up a team of Enterprise Architects following the TOGAF 9 practice. The main challenge is now to offer to Chiamin Metals customers a centralized and reliable entry point for their request via the implementation of a global online portal. This will allow the management of new marketing activities and will enable the new Chiamin Metals' ecommerce service.

Refer to the scenario above

You are the Chief Architect and the CIO asked you to present an Architecture Vision to address the above business problem. Identify the best answer accordingly to the TOGAF 9.

Choose one of the following answers

- A.** You identify key stakeholders, their concerns, and define the key business requirements to be addressed in the architecture engagement and generate a Stakeholder Map. You Evaluate business capabilities and execute a Business Transformation Readiness Assessment. You apply the Business Scenarios technique to create a high-level view of the Baseline and Target Architectures also based on the stakeholder concerns, business capability requirements, scope, constraints, and principles.
- B.** As requested by the CIO you focus on the Architecture Vision documentation and apply the Business Scenarios technique to create a high-level view of the Baseline and Target Architectures also based on the stakeholder concerns, business capability requirements, scope, constraints, and principles.
- C.** You create a high-level view of the Target Architectures and then present them to the CIO.
- D.** As requested by the CIO you focus on the Architecture Vision and create a detailed view of the Baseline Architectures. This is done for Business, Data, Application and Technology domains and then presented to the CIO using the Architecture Definition Document.

Answer: A

Question No : 17

TotalComms is a telecommunications company formed from the merging of other 2 telecommunication companies. The business operating model has been unified, the TOGAF 9 Architecture Board approved the outline Implementation and Migration Plan the detailed migration planning must now be approved. Your help is needed to work on the migration planning with all the key stakeholders to achieve an agreement.

Refer to the scenario above

You are the Lead Architect asked to describe accordingly to TOGAF 9 the best way to address the following activities:

The way the migration planning is conducted.

What is going to be implemented.

The stakeholders involved in the implementation.

The definition of the deliverables to use

Choose one of the following answers

A. The Chief Architect will conduct the Migration planning and then share it with the other domain architects. The migration plan will be formed by a list of projects, their priority, their costs and a recommendation on how to proceed. After the plan is shared with the Architectural Board members and any observation that may raise incorporated in the plan, any individual project will go in front of the board for the approval for resources for the next project increment. A GANT chart will be included to be used as a roadmap.

B. The Migration planning will be conducted as a series of steps: confirming and then coordinating the corporate management frameworks involved; establishing clear business value for the deliverables; creating detailed resource estimates for the work to do; define priority of the work, sequence and then the Transition Architectures. After this, an Implementation and Migration Plan can be confirmed. The Portfolio Management, Operations Management and Business Planning teams should be involved in the implementation of the major deliverables. Once these have been completed, regular meetings will be done to enable the architecture to be kept up-to-date.

C. Implementation and Migration Strategy will be used to define project plans focusing on scope, time and budget. The business value of each project is assessed and Project Managers will prepare submissions to the IT governance Board to ask for their funding and the Lead Architect will be active part of the board. The collection of project roadmaps and plans will be used to detail the EA Implementation and Migration Plan.

D. This step will be conducted by the Enterprise Architecture team involving Business, Application, Data, Technology, and Security architects. They will implement the Transition Architectures and together will prioritize a list of activities and include the Architecture Building Blocks in an Implementation and Migration Plan and Roadmap. After this, the comments on the deliverables shared with lines of business and the members of the Executive Board are integrated, this to enable the funding on the Enterprise Architecture work.

Answer: B

Dante Manufacturing is a big supplier in the automotive industry, head quarter in London with main plants in New York, Milan, Toronto and Tokio. Each one of these plants has been operating its own Manufacturing Requirements Planning (MRP II) system, production scheduling and custom applications for production automation. Dante's objective is to minimize waste production improving production operations. During an analysis of the process improvements was determined that a significant improvement on waste production could be achieved replacing the outdated MRPII system with a common Enterprise Resource Planning (ERP) located in London. Dante has well-developed governance and processes based on TOGAF 9. The Chief Engineer of Global Manufacturing operations is the business sponsor and issued a Request for Architectural Work. The architectural activity for the implementation of the new ERP platform is kicked off and the architectural vision is produced. Some concerns on the security, reliability, responsibility and time to manage change of driving the MRP II and production scheduling by a central system located in London are raised by the team of architects working on the project and by senior management of the various organizations. These last in particular, stressed the need to align the information management with the business.

Refer to the scenario above

As Lead Architect you have been asked to update the IT architectural principles to address the concerns raised by the project stakeholders and the senior management. According to TOGAF 9 (assuming the enterprise is using the example set of principles in TOGAF 9 Section 23.6), which of the following is the best answer?

Choose one of the following answers

- A.** Common Use Applications, Data is Shared, Data is Accessible, Data is Secure, Interoperability, Control, Technology Independence.
- B.** Business Continuity, Service-Orientation, Data is Shared , Data is Accessible, Data is Secure, Responsive Change Management.
- C.** Requirements-Based Change, Ease-of-Use, Data is Normalized.
- D.** Information Management is Everybody's business, IT Responsibility, Data Trustee, Technology Independence, Responsive Change Management.

Answer: B

Question No : 19

Scenario

Please read this scenario prior to answering the question

You are working as a consultant to the Chief Architect at a government agency responsible for securing all government communications and information systems. The agency has recently received funding for a program that will upgrade the reliability and performance of its secure communication systems which provide real-time, highly secure communication of voice, video, and message data to remote locations around the world.

The agency has an established enterprise architecture (EA) capability based on TOGAF 9. The Executive Director of the agency is the sponsor of the EA capability.

Since reliable, high-performance, and secure communications are essential to preserving national security, the Executive Director has placed more stringent requirements for the architecture for the upgraded system. It must be able to provide assurance and verification of specific performance measures on the key services that are most crucial for system operation. Focusing on these service-level details and specific measurements will allow more stringent requirements to be enforced in service contracts. It will also provide a high degree of assurance that necessary performance is being delivered and that notifications will occur if any critical service fails to perform as required.

A portion of the program budget has been allocated to conduct a review of the EA. The scope of the review is to evaluate the processes, content and governance of the EA capability to ensure that the higher target performance and service levels required by the upgraded system can be achieved.

The Chief Architecture has noted that the core EA artifacts that have been used since TOGAF 9 was introduced are not adequate to describe these new capabilities. The artifacts do not have explicit provisions for defining the in-depth measurement requirements regarding specific services required for the system. She has learned that certain services within the current system have service measurement implementations that match some of the new requirements, but they are only used in a few areas.

Recent EA efforts at another national agency have produced generalized high-performance communication system models to realize similar requirements in a critical defense system involving secure communications. It is possible that these models may be useful for the upgrade program.

Refer to the Scenario

You have been asked to make recommendations for tailoring the Architecture Content Metamodel to accommodate the requirements of the upgraded system.

Based on TOGAF, which of the following is the best answer?

- A.** Since some artifacts will now require specific measurements and additional data will be needed to support the performance objectives linked to these measurements, you recommend that the motivation and governance extensions of the TOGAF 9 Content Metamodel are used. Using these extensions will allow modeling the goals, objectives and drivers for the architecture, linking them to service levels and more detailed governance models. This will also enable the ability to re-use existing profiles, customizing them for the various service contracts involved.
- B.** You recommend all of the TOGAF 9 Content Metamodel extensions be incorporated into the Architecture Content Metamodel. The full Content Metamodel will enable the EA team to capture and categorize all the important additional data needed to support the performance and measurement objectives linked to these artifacts. Once the new repository content has been implemented, on-demand queries can be used to generate a customized governance stakeholder view that isolates the artifacts and data needed to assess measurement for any particular service. If this view is found to be inadequate for the governance concerns, the service models within those artifacts can be expanded.
- C.** Since this case requires extensions of the modeling and data details of the service, this is best done by using the services extension of the TOGAF 9 Content Metamodel. By using this extension, the service model is no longer constrained by what is expected in typical business service definitions, allowing more flexibility for adding customized models to support the more stringent measurement requirements. The services extension can also be used to map terminology between the business services and the application components.
- D.** To support the type of stringent performance measurements needed for the more detailed governance views required for the upgraded system, the interfaces to the communication and network layer of the architecture must be highly visible at the application level. To accommodate the proper development of this, a Communications Engineering view should be created from the infrastructure extension models of the TOGAF Content Metamodel. This view will allow architects to align the required performance measurement communications across the system.

Answer: C

Question No : 20

Your role is that of a consultant to the Lead Enterprise Architect in a company that develops wind turbines for use in wind farms. The company has three manufacturing facilities, one in North America, one in Asia, and one in Europe. Each of these facilities supplies the power industry in its region.

The company recognizes that the long-term technical potential of wind energy can address the current global dependency on carbon fuels, in order to do so this will require wind turbines to be installed over the large areas and in areas of higher wind resources. In particular offshore wind farms can contribute substantially more energy than land stationed turbines.

The research arm of the company has pioneered the development of an offshore wind turbine design, with an improved turbine blade and power system, that will produce up to 20% more energy. This will allow the production of significantly more salable energy. This new design is ready to go into production.

The company has a mature Enterprise Architecture practice supported by a cross-functional Architecture Board and uses the TOGAF standard. The Chief

Information Officer and the Chief Operating Officer co-sponsor the Enterprise Architecture program.

As part of putting the new design into production, a pilot architecture project has defined an updated standard approach for controlling the automated test systems used to perform final quality assurance. The Chief Engineer, sponsor of the activity, and the Architecture Board have approved the plan for immediate implementation at each plant.

Architecture Contracts have been developed that detail the work needed to implement and deploy the new automated test system controller for each location. The

Chief Engineer has expressed concern that a uniform process be employed at each location to ensure consistency and a low blade failure rate.

You have been asked to recommend the best approach to address the Chief Engineer's concern.

Based on the TOGAF Standard, Version 9.2, which of the following is the best answer?

- A.** You create an Architecture Contract to manage and govern implementation and migration process at each location. For internal development projects, you issue a memorandum of understanding between the Architecture Board and the implementation organization. For contracts issued to an external party, you ensure that it is a fully enforceable legal contract. You ensure that the Architecture Board reviews all deviations from the Architecture Contract, and considers whether or not to grant a dispensation to allow the implementation organization to customize the process to meet their local needs.
- B.** You create an Architecture Contract to manage and govern the implementation and migration process. If the contract is issued to an external party, you ensure that it is a fully enforceable legal contract. For internal development projects, you decide it is adequate to utilize a memorandum of understanding between the Architecture Board and the implementation organization. You recommend that if a deviation from the Architecture Contract is detected, the Architecture Board grant a dispensation to allow the implementation organization the ability to customize the process to meet their local needs.
- C.** You review the applicable Architecture Contract for each location, ensuring that it addresses the project objectives, effectiveness metrics, acceptance criteria, and risk management. In cases where the contract is issued to an external party, you ensure that it is a legally enforceable contract. You schedule compliance reviews at key points in the implementation process to ensure that the work is proceeding in accordance with the Architecture Board reviews all deviations from the Architecture Contract, and considers whether or not to grant a dispensation to allow the implementation organization to