

## **IBM ARCHITECTURAL DESIGN OF SOA SOLUTIONS COURSE CONTENT**

### ❖ **SECTION 1 - KNOWLEDGE OF APPLIED SOA (13%):**

- A. Apply the SOA approach to solution architecture.
- B. Position the benefits of SOA with respect to business and IT strategy
- C. Define the role that standards play in an SOA solution.
- D. Apply the IBM SOA Reference Architecture and leverage the IBM SOA Foundation
- E. Apply proper design guidelines for an SOA solution

### ❖ **SECTION 2 - SOA ASSESSMENT AND ANALYSIS (20%):**

- A. Assess and articulate the business problem
- B. Perform an as-is SOA assessment using Service Integration Maturity Model (SIMM) or similar model.
- C. Capture and assess IT/technical issues and objectives
- D. Capture and assess the SOA business issues and objectives (people, processes and information)
- E. Capture and assess architectural issues and objectives
- F. Capture and assess governance issues and objectives
- G. Create an SOA solution definition and roadmap utilizing existing reference architectures where appropriate
- H. Identify functional requirements for the SOA solution definition
- I. Identify nonfunctional requirements and how they relate to the SOA solution definition

### ❖ **SECTION 3 – SOA DESIGN (30%):**

- A. Articulate architectural/design decisions as they relate to people, process, information, connectivity, and re-use.
- B. Identify candidate SOA patterns that can be applied to the customer problem.
- C. Incorporate the IBM SOA Foundation into design as appropriate
- D. Choose the appropriate tools for the various aspects of the design (people, process, information).
- E. Identify and define the services that are required to address the business problem.
- F. Define how services would be realized with new or existing assets.
- G. Define how the SOA design maps to and affects the IT infrastructure.
- H. Define in the design how the non-functional requirements are being addressed.
- I. Define the aspects of the governance model and how they apply to the solution.
- J. Identify and incorporate the standards appropriate for the solution in the design.

### ❖ **SECTION 4 - SOA REALIZATION (22%):**

- A. Guide and review the application of the SOA infrastructure
- B. Guide and review the implementation of selected patterns
- C. Guide and review the services enablement for existing assets
- D. Guide and review the user interaction implementation
- E. Guide and review the Business Process Management implementation
- F. Guide and review the information management implementation
- G. Guide and review the security implementation
- H. Guide and review the service management implementation
- I. Guide and review quality assurance (e.g., unit, function, performance, and system test)
- J. Ensure that governance is properly applied to the SOA realization.

### ❖ **SECTION 5 - SOA DEPLOYMENT AND MANAGEMENT (15%):**

- A. Guide and review the Operations Management (e.g. security, monitor, systems management, workload management)
- B. Guide and review the solution distribution and deployment
- C. Guide and review the Service Management (e.g., Service Level Agreements, Operating Level Agreement, Charge Back)

- D. Guide and review the deployment and management of the infrastructure specific solution components
- E. Ensure procedures are in place to feed monitored operational data into the development lifecycle process.

