

IBM WEBSHERE ENTERPRISE SERVICE BUS V7.0, INTEGRATION DEVELOPMENT COURSE

CONTENT

❖ **SECTION 1 - INTEGRATION SOLUTION DESIGN AND SERVICE COMPONENT ARCHITECTURE (SCA) PROGRAMMING MODEL (10%):**

- A. Identify Service Oriented Architecture (SOA) core components and their function in integration solution design.
- B. Apply the Service Component Architecture (SCA) programming model to an integration solution design.
- C. Organize modules into an effective project structure taking into consideration component reuse and application maintainability.
- D. Identify the relationship of WebSphere Enterprise Service Bus with related WebSphere products and other business process management products.

❖ **SECTION 2 - CONNECTIVITY AND INTEGRATION (18%):**

- A. Analyze connectivity requirements for integration solution designs.
- B. Create and maintain assembly diagrams with the Assembly Diagram Editor.
- C. Explain the role of technology and application adapters in an integration solution.
- D. Configure inbound and outbound adapter bindings.
- E. Configure import and export bindings (e.g., JMS, MQ, Web Services, HTTP) and Stand-alone References.
- F. Demonstrate usage of synchronous and asynchronous invocation patterns.

❖ **SECTION 3 - COMPONENT DEVELOPMENT (44%):**

- A. Describe the Service Message Object (SMO) structure.
- B. Perform business object design using the Business Object Editor.
- C. Perform interface design using the Interface Editor.
- D. Configure dependencies for modules and libraries using the Module Dependency Editor.
- E. Perform map design using the mapping editors.
- F. Perform mediation flow development with the Mediation Flow Editor.
- G. Configure dynamic mediation modules (dynamic routing and mediation policy resolution).
- H. Implement the Custom Mediation primitive within a mediation flow.
- I. Design and implement appropriate error handling within a mediation flow.
- J. Analyze and configure Quality of Service qualifiers.
- K. Configure components to emit events and messages (Event Emitter primitive and Message Logger primitive).

❖ **SECTION 4 - TESTING AND PROBLEM DETERMINATION (18%):**

- A. Configure the Component Test Project to create test cases.
- B. Configure and use the integrated test environment to test mediation modules and components.
- C. Use the integration test client for component testing such as data pool creation and test suite usage.
- D. Use debugging tools to troubleshoot components.
- E. Monitor events configured during mediation module design for problem determination.
- F. Identify and use appropriate server logs for application and deployment errors.

❖ **SECTION 5 - APPLICATION PACKAGING, DEPLOYMENT, MIGRATION AND MAINTENANCE (10%):**

- A. Configure IBM WebSphere Integration Developer to work with an embedded test server.
- B. Automate the build and packaging process using ws_ant and serviceDeploy tool.
- C. Deploy version and non-version mediation modules using the administrative console (Integrated Solutions Console).
- D. Migrate mediation modules developed for prior versions of IBM WebSphere Enterprise Service Bus to version 7.0.
- E. Use libraries to support effective component reuse and application maintainability.
- F. Apply versioning concepts for module maintenance.