

## **Web Services Development Using SOAP and REST**

Duration: 90 Minutes Max Marks :50

Section-I Marks: 20

- **1.** Which of the following are common characteristics of a web service?
  - 1. A text-based data interchange format
  - 2. A peer-to-peer architecture
  - 3. Support for the Java Message Service (JMS) API
  - 4. A client accessible service description
- **2.** An XML schema simpleType may contain
  - a. sequence
  - b. choice
  - c restriction
  - d. enumeration
- **3.** A request to a SOAP web service endpoint must always be transferred using the HTTP protocol.

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- A. True
- B. False
- **4.** The definitions element in a completed WSDL should contain which sequence of elements?
  - A. types, message, portType, binding, service
  - B. Envelope, Header, Body
  - C. sequence, choice, enumeration, restriction
  - D. types, parts, ports, binding, location
- **5.** The methods available in a JAX-WS-generated web service client are determined by:
  - A. The imported WSDL
  - B. The service endpoint
  - C. JAXB binding customizations
  - D. @WebServiceRef annotation attributes
- **6.** Which HTTP status code range represents client errors?
  - A. 1xx
  - B. 2xx
  - C. 3xx
  - D. 4xx
  - E. 5xx

- **7.** Which HTTP methods are idempotent?
  - A. GET
  - B. PUT
  - C. DELETE
  - D. POST
- 8. Which Jersey class represents a REST resource that is located at a URL?
  - A. Client
  - B. URL
  - C. WebResource
  - D. ClientResponse
- **9.** Public methods in an endpoint must be annotated with @WebMethod in order to be exposed to clients.
  - A. True
  - B. False
- **10.** When using a bottom-up development approach to create SOAP endpoints you create the WSDL file first.
  - A. True
  - B. False
- **11.** When using a top-down development approach to create SOAP endpoints the resulting method names are determined solely by the WSDL file.
  - A. True
  - B. False
- 12. To generate the service endpoint interface from a WSDL you would use:
  - A. apt
  - B. javac
  - C. wsgen
  - D. wsimport
- **13.** What are the three categories of methods that might be called to handle a HTTP GET by a JAX-RS implementation?
  - A. Resource
  - B. Nested-Resource
  - C. Sub-Resource
  - D. Factory
  - E. Locator
- **14.** A sub-resource locator method in annotated with one or more HTTP method annotations such as @GET.
  - A. True
  - B. False
- 15. A root resource class must be annotated with:
  - A. @Produces
  - B. @GET
  - C. @WebService
  - D. @Path

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- **16.** In a SOAP message, a <S:Fault> element will always contain:
  - A. <faultcode>
  - B. <faultstring>
  - C. <faultactor>
  - D. <detail>
- 17. Confidentiality can be enabled by using the web.xml file.
  - A. True
  - B. False
- **18.** A <security-constraint> that is missing a <http-method> element will not apply to any HTTP methods.
  - A. True
  - B. False
- 19. All JAX-WS implementations must support WS-Security extensions.
  - A. True
  - B. False
- 20. Which methods are available in a JAX-RS SecurityContext?
  - A. getUserPrincipal()
  - B. isUserInRole("role")
  - C. getCallerPrincipal()
  - D. isCallerInRole("role")

Section-II

Marks: 30

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- **1.** What is the importance of Using XML Schemas in any application development. Create XML Schema to validate Employee Details.
- **2.** Explain the benefits of JAXB. Unmarshall XML data with JAXB and Marshall XML data with JAXB.
- **3.** What is SOAP Based WebServices? Explain the need of RESTFul Web Services in Application Development.
- **4.** Create a sample application for Airline Reservation Application Representing SOAP Based Web Services both the Approaches [ Top Down and Bottom Up]
- **5.** Create an application for RESTFul Web Services for Airline Reservation Application Representing RESTFul Webservices [ Both ServerSide and ClientSide ( Using Jersey ] Implementation.
- **6.** Explain Jersey Client API. Explore Different Types of Parameter Passing in RESTFul Webservices.