

Employee Id: \_\_\_\_\_

Duration: 1.5 Hrs

Max. Marks 60

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**Instructions:**

1. First 5 minutes are provided to read & understand the test paper and 5 minutes for recheck whatever code we have written.
  2. Question Part1 and Part2 both have to complete.
  3. Create a project with Collection followed by your first name and employee ID.
  4. Take care of Plagiarism
  5. Referring Java Documentation is allowed.
  6. **Marks will only be awarded to working functionalities**
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Question Part1

**Q1. Multiple Choice Questions:**

**Q1.1 Select correct definition of a WSDL's <service> element.**

- A. Collection of related endpoints.
- B. Contains data type definitions using type system.
- C. A single endpoint defined as a combination of a binding and a network address.
- D. Set of operations supported by one or more Endpoints.
- E. IndexOutOfBoundsException

**Q1. Select statements which are true for SOAP. (Any 3)**

- A. SOAP Transport protocol used by Web Services
- B. SOAP is specification for exchanging structured information
- C. SOAP relies on other transport protocols like http, ftp for data transmission
- D. SOAP uses xml to format data
- E. SOAP uses json to format data

**Q1.3 you want to create JAX-WS Web service client for Calculator service. Service is implemented in java You have given a WSDL file for service. What is correct statement to be able to create WS client from WSDL. (Select one).**

- A. Use JAXP to parse and generate the java classes from WSDL. Then create Service Endpoint Interface (SEI) from factory classes. Then use SEI to call WS.
- B. Use wsgen to generate SEI from WSDL and then invoke SEI's methods to call WS.
- C. Use wsimport to generate SEI from WSDL and then invoke SEI's methods to call WS.
- D. We cannot consume a web service created in C++ on java.

**Q1.4 you have created one web service which is deployed in web container, now we need to support WS client session in our service. However we have to expire a session in case user session is inactive for 10 minutes. Which file we need to modify for this requirement.**

- A. security.xml
- B. sun-web.xml
- C. web.xml
- D. webservices.xml

**Q1.5 A web service contract is described using**

- a) Web Services Description Language
- b) Web Services Description
- c) All of the mentioned
- d) none of the mentioned

**Q1.6 Please select incorrect statement among following statements.**

- A. Confidentiality - encrypting of SOAP messages
- B. Integrity - signing of SOAP messages
- C. Authentication - attach security tokens to SOAP messages
- D. Non-repudiation - signing of SOAP messages
- E. Authorization - attach identity tokens to SOAP message

### Q1.7 Which of the following code snippet matches to this WSDL portType element?

```
<portType name="ElementsTableImpl">
  <operation name="getTable">
    <input message="tns:getTable" />
    <output message="tns:getTableResponse" />
    <fault message="tns:WsException" name="WsException" />
  </operation>
</portType>
```

#### A. @WebService

```
public class ElementsTableImpl {
    public SimpleElementsTable getElementsTable(Integer number) throws WsException {
        SimpleElementsTable table = new SimpleElementsTable (number);
        return table;
    }
}
```

#### B. @WebService

```
public class ElementsTableImpl {
    public SimpleElementsTable getTable(Integer number) {
        SimpleElementsTable table = new SimpleElementsTable(number);
        return table;
    }
}
```

#### C. @WebService (endpointInterface=""ElementsTableService"")

```
public class ElementsTableImpl {
    public SimpleElementsTable getTable(Integer number) throws WsException {
        SimpleElementsTable table = new SimpleElementsTable(number);
        return table;
    }
}
```

#### D. @WebService

```
public class ElementsTableImpl {
    public SimpleElementsTable getTable(Integer number) throws WsException {
        SimpleElementsTable table = new SimpleElementsTable(number);
        return table;
    }
}
```

### Q1.8 Which component of Web Services acts as a directory?

- A. UDDI
- B. XML
- C. SOAP
- D. WSIL
- E. WSDL

### Q1.9 Web services components are written in which Markup Language?

- A. SGML
- B. HTML
- C. XHTML
- D. XML
- E. DTD

Spring-WS supports annotating an arbitrary class as a service endpoint by:-

- a) @Endpoint
- b) @End
- c) @Point
- d) None of the mentioned

## Question Part2

1. Write a soap based webservice which will take input as first name, last name and surname and make it as short name. For eg. First Name: Sanjay, Last Name: Kumar and Surname: Chandel. Output should product by the webservice is SKChandel.
2. Create a RESTFul Webservice for following:-
  1. Convert total number of seconds into Hours, Minutes and Seconds. For eg 3680 seconds could produce output as 1Hour 1 Minutes and 20 Seconds.
  2. Convert Celsius to Fahrenheit ( $\text{Fahrenheit} = (9/5) * \text{Celsius} + 32$ ).
  3. Convert Fahrenheit to Celsius ( $\text{Celsius} = (5/9) * (\text{Fahrenheit} - 32)$ )

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