TSP	: Birds A&Z Ltd.	**Date**	: 26-Jan-17
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Trainee Name : _____   **Trainee ID** : _____   Marks Rewarded: ____

Q1. How can you specify cardinality of elements in XSD?
- A. Using symbols like +, *, ?
- B. Using minOccurs and maxOccurs attribute
- C. The is no symbols or attributes; Elements can appear as many as many times as they are declared
- D. You can not specify cardinality in XSD

Answer: B

Q2. You are creating an XSD schema, which one is correctly sets the maxOccurs attribute to specify that the element can appear any number of times?
- A. maxOccurs="unbounded"
- B. maxOccurs="any"
- C. maxOccurs="*"
- D. maxOccurs="?"

Answer: A

Q3. You created the following XSD

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="runbyovers" >
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="over" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="runs" type="xsd:int" />
            </xsd:sequence>
            <xsd:attribute name="no" type="xsd:int" use="required"/>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

According the XSD which one the following is valid?
- A.
```
<runbyovers>
</runbyovers>
```
- B.
```
<runbyovers>
  <over no="1">
    <runs>2</runs>
  </over>
  <over no="2">
  </over>
```
- C.
```
</runbyovers>
<runbyovers>
  <over no="1">
    <runs>2</runs>
  </over>
  <over>
    <runs>5</runs>
  </over>
</runbyovers>
```
- D.
```
<runbyovers>
  <over no="1">
    <runs>2</runs>
  </over>
  <over no="2">
    <runs>5</runs>
  </over>
</runbyovers>
```

Answer: D

Q4. You created the following XSD

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="runbyovers" >
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="over" maxOccurs="unbounded" minOccurs="0">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="runs" type="xsd:int" />
            </xsd:sequence>
            <xsd:attribute name="no" type="xsd:int" use="required"/>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

According the XSD which one the following is/are valid?

A. ```
   ```
B. ```
   <runbyovers>
     <over no="1">
       <runs>2</runs>
     </over>
     <over no="2">
     </over>
   ```
C. ```
   </runbyovers>
   <runbyovers>
     <over no="1">
       <runs>2</runs>
     </over>
     <over>
       <runs>5</runs>
     </over>
   </runbyovers>
   ```
D. ```
   <runbyovers>
     <over no="1">
       <runs>2</runs>
     </over>
     <over no="2">
       <runs>5</runs>
     </over>
   </runbyovers>
   ```

Answer: A, D

Q5. You have an XSD defined like below

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="runbyovers" >
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="over" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="runs" type="xsd:int" />
            </xsd:sequence>
            <xsd:attribute name="overno" type="xsd:int" use="required"/>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

Now you want that value of the attribute "overno" must be in between 1 and 50. You are to apply the constraint using local type. How do you change the attribute?

A. ```
   <xsd:attribute name="overno" use="required">
     <xsd:simpleType>
   ```

```
                <xsd:restriction base="xsd:int">
                    <xsd:minExclusive value="1" />
                    <xsd:maxExclusive value="50"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:attribute>
    B.  <xsd:attribute name="overno" type="xsd:int" use="required">
            <xsd:simpleType>
                <xsd:restriction base="xsd:int">
                    <xsd:minInclusive value="1" />
                  <xsd:maxInclusive value="50"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:attribute>
    C.  <xsd:attribute name="overno" use="required">
            <xsd:simpleType>
                <xsd:restriction base="xsd:int">
                    <xsd:minInclusive value="1" />
                    <xsd:maxInclusive value="50"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:attribute>
    D.  <xsd:attribute name="overno" use="required">
            <xsd:simpleType>
                <xsd:restriction base="xsd:int">
                    <xsd:min value="1" />
                    <xsd:max value="50"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:attribute>
```

Answer: C

Q6 & Q7 are based on the following XSD

```
<?xml version="1.0" encoding="utf-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="products">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="product" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="name">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="50" />
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
              <xsd:element name="price">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:decimal">
                    <xsd:minExclusive value="0"/>
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
            </xsd:sequence>
            <xsd:attribute name="id" type="xsd:int" use="required"/>
          </xsd:complexType>
1.
        </xsd:element>
2.
      </xsd:sequence>

    </xsd:complexType>
3.
  </xsd:element>
4.
</xsd:schema>
```

Q6. You want to create the **id** attribute to be unique in the document (i.e., like primary key). You have four points (1, 2, 3 and 4). Where should you define it?

- A. At 1
- B. At 2
- C. At 3
- D. At 4

Answer: C [Key must be defined in the root element]

Q7. You want to create the **id** attribute to be unique in the document (i.e., like primary key). Which one the valid definition of the key?

- A.
```
<xsd:key>
      <xsd:selector xpath="./product" />
      <xsd:field xpath="@id" />
</xsd:key>
```
- B.
```
<xsd:key name="PK_PRODUCT_ID">
      <xsd:selector xpath="./product/@id" />
</xsd:key>
```
- C.
```
<xsd:key name="PK_PRODUCT_ID">
      <xsd:selector xpath="product" />
      <xsd:field xpath="id" />
</xsd:key>
```
- D.
```
<xsd:key name="PK_PRODUCT_ID">
      <xsd:selector xpath="./product" />
      <xsd:field xpath="@id" />
</xsd:key>
```

Answer: D

Q8. Which of the following is NOT a XML-based object persistence technology?

- A. KMOL
- B. XMOP
- C. Coins
- D. SMIL

Answer: D

Q9. Which of the following is not true about XML Data Islands?

- A. You do not need a separate XML file
- B. You do not need to load XML using scripting code
- C. You do not need to create active control using object tag
- D. XML data is independent of HTML page

Answer: D

Q10. Which one of the following is not a Raster Image Format?

- A. JPEG
- B. GIF
- C. BMP
- D. SVG

Answer: D

Q11. VML stands for _____.

- A. Virtual Model Language
- B. Vector Markup Language
- C. Vector Making Language
- D. Video Markup Language

Answer: B

Q12. A _____ can use DTD or schema to verify that the document is constructed according to the rules.

- A. Validating parser
- B. Stream-based parser
- C. Tree-based parser
- D. None of the above

Q13. You are incorporating XML data in HTML using XML Data Islands. Which of the following will show the data correctly?

- A.
```
<xml id="di">
      <book id="B001" name="XML">
      </book>
</xml>
<div datasrc="#di">
      <span datafld="id"></span>
```

```
            <span datafld="name"></span>
        </div>
    B.  <xml id="di">
            <book id="B001" name="XML">
            </book>
        </xml>
        <div datasrc="#di">
            <span datafld="@id"></span>
            <span datafld="name"></span>
        </div>
    C.  <xml id="di">
            <book id="B001" name="XML">
            </book>
        </xml>
        <div>
            <span datasrc="#di" datafld="id"></span>
            <span datasrc="#di" datafld="name"></span>
        </div>
```
Answer: D

Q14. Which one of the following is **NOT** valid content type in XML-Data?
    A. empty
    B. textOnly
    C. eltOnly
    D. any

Answer: D [empty, textOnly, eltOnly and mixed]

Q15. Consider the following Schema document
```
<Schema xmlns="urn:schemas-microsoft-com:xml-data">
  <ElementType name="phone" content="textOnly" />
  <ElementType name="email" content="textOnly" />
  <ElementType name="contact" content="eltOnly">
    <group order="_____">
      <element type="phone"/>
      <element type="email"/>
    </group>
  </ElementType>
</Schema>
```
In the contact element, both the phone and email can appear any number of times and in any order,
what will be value of the order attribute?
    A. seq
    B. one
    C. many
    D. all

Answer: C

Q16. Consider the Schema document
```
<?xml version="1.0" encoding="utf-8"?>
<Schema xmlns="urn:schemas-microsoft-com:xml-data" xmlns:dt="urn:schemas-microsoft-
com:datatypes">
  <AttributeType name="priority" …. />
  <ElementType name="mail" content="eltOnly">
      …
    <attribute type="priority" default="normal"/>
  </ElementType>
</Schema>
```
You want that the value of priority attribute can be one of low, high and normal. Which one correctly
defines it?
    A. `<AttributeType name="priority" type="enumeration" values="low normal high" />`
    B. `<AttributeType name="priority" type="enumeration" values="low|normal|high" />`
    C. `<AttributeType name="priority" dt:type="enumeration" dt:values="low, normal, high" />`
    D. `<AttributeType name="priority" dt:type="enumeration" dt:values="low normal high" />`

Answer: D

Q17. In XPath expression with one denotes current context?
    A. /
    B. //
    C. .
    D. ..

Answer: C

Q18. In XPath expression with one denotes root level?
    A. /
    B. //
    C. .
    D. ..
Answer: A

Q19. In XPath expression with one denotes recursive-descendants?
    A. /
    B. //
    C. .
    D. ..
Answer: B

Q20. In XPath expression with one finds all the children within a given context?
    A. /
    B. //
    C. .
    D. *
Answer: D

Q21. Which of the following used to direct XSL processor to find the correct template to apply based on the pattern specified?
    A. xsl:apply
    B. xsl:apply-templates
    C. xsl:template
    D. xsl:find
Answer: B

Q22. In XPath expression, which of the following are grouping operators?
    A. ()
    B. []
    C. /. //
    D. ., .., *
Answer: A

Q23. In XPath expression, which of the following are subquery operators?
    A. ()
    B. []
    C. /. //
    D. ., .., *
Answer: B

Q24. In XSL pattern, which one is the case-insensitive in-equality operator?
    A. ne
    B. ine
    C. ine
    D. gne

Q25. Consider the following XML
```
<items>
  <item name="Oxide" boxing="Tin container" weight="900" price="670" />
  <item name="Per Oxide" boxing="Plastic Barrel" weight="1000" price="875" />
</items>
```
You are converting XML using XSLT. You want process each item and sort items on price in descending order. You XSLT is like below
```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:template match="/items">
      <xsl:for-each select="item">
        <xsl:sort …/>

      </xsl:for-each>
    </xsl:template>
</xsl:stylesheet>
```
Which one correctly defines the sorting?
    A. <xsl:sort order="descending" select="@price"/>
    B. <xsl:sort order="descending" data-type="number" select="item"/>
    C. <xsl:sort order="descending" data-type="number" select="price"/>

D. `<xsl:sort order="descending" data-type="number" select="@price"/>`

Answer: D

Q26. Which of the following is **NOT** true about XSL?
- A. XSL is a formatting language built for XML
- B. XSL uses a different syntax and notations from those used in XML
- C. XSL's structure and syntax are as those in XML
- D. XSL is an application of XML

Answer: B

Q27. Which of the following is or are not true?
- A. XSL style rules for an XML document consist of only one template
- B. XSL style rules for an XML document consist of one or more templates
- C. Each template contains a pattern
- D. XSL can produce HTML output

Answer: A

Q28. For a XSL Patterns Query to work, you specify a _____ in which it will operate. Choose the write option for the blank.
- A. context
- B. root
- C. node
- D. tree

Answer: A

Q29. Q15. Which XSL element is used in conjunction with xsl:choose and xsl:when?
- A. xsl:else
- B. xsl:otherwise
- C. xsl:default
- D. xsl:none

Answer: B

Q30. Which extension XSL is built around filtering and addressing data XML document?
- A. XSL patterns
- B. XSL query
- C. XSL template
- D. XPointer

Answer: A

Q31. What is the Context in XSL patterns query?
- A. The node or range of nodes on which the query will work
- B. The node or range of nodes on which the query will exclude
- C. The document on which the query will operate
- D. The template for the XSL patterns query.

Answer: A

Q32. With XLL, if you want that the content of the target source should be inserted at the position of an XML Link in a source document, what will be the value of the SHOW attribute?
- A. blank
- B. new
- C. embed
- D. replace

Answer: C

Q33. Which one provides a way to address the internal structure of an XML document?
- A. XLink
- B. XPath
- C. XPointer
- D. XSL

Answer: C

Q34. According to XML-Data specification within datatypes namespace, what does the following data type declaration mean?

fixed.14.4
- A. A number of 4 digits with 14 parts precision
- B. A number which can have maximum 14 digits but alt least 4 digits
- C. A number which can have maximum 14 digits on the left of decimal point and maximum 4 digits on the right of decimal point
- D. A number which can have maximum 14 digits but maximum 4 digits on the right of decimal point

Answer: C

Q35. _____ in XML is a methodology for creating unique name in an XML document by identifying element names with a unique external resource.
Find out the correct word for the blank.
   A. Document rules
   B. Schema Definitions
   C. Namespaces
   D. Parsers
Answer: C

Q36. To create a copy of DataTable object's schema without data, you use_____ method.
   A. Copy
   B. Clone
   C. CopyScheama
   D. CopyTo
Answer: B

Q37. You have a dataview v of DataTable customers. To sort on Country column in descending order you will use the statement?
   A. v.OrderBy = "Country DESC";
   B. v.SortOrder = "Country DESC";
   C. v.Sort = "ORDER BY Country DESC";
   D. v.Sort = "Country DESC";
Answer: D

Q37. When you can AcceptChanges on a DataTable instance, RowState of all rows changes to_____.
   A. Modified
   B. Current
   C. Original
   D. Unchanged
Answer: D

Q38. You created a DataTable object cars using code like below
```
1. DataTable cars = new DataTable("Cars");
2. DataColumn colModel = new DataColumn();
3. colModel.ColumnName = "Model";
4. colModel.DataType = typeof(string);
5. colModel.MaxLength=50;
6.
7. cars.Columns.Add(colModel);
```
You want to make sure that model column non-nullable and does not allow duplicate values. What code should you add at line 6?
   A. `colModel.AllowDBNull = false;`
      `colModel.PrimaryKey = true;`
   B. `colModel.AllowDBNull = false;`
      `colModel.IsUnique = true;`
   C. `colModel.AllowNull = false;`
      `colModel.AllowDuplicate = false;`
   D. `colModel.AllowDBNull = false;`
      `colModel.Unique = true;`
Answer: D

Q39. Which one can be thought of an in-memory snap-shot of a physical database?
   A. DataTable
   B. DataReader
   C. DataSet
   D. DataAdapter
Answer: C

Q40. Which one read-only, forward-only recordset?
   A. DataTable
   B. DataSet
   C. DataReader
   D. DataRow
Answer: C

Q41. Which one is a bridge between DataSet and Database?
   A. DataAdapter
   B. DataConnection
   C. DataCommand

D. DataReader

Answer: A

Q42. Which method of the DataAdapter instance is used to populate DataTable or DataSet?
- A. Fetch
- B. Sync
- C. Fill
- D. Populate

Answer: C

Q43. Which method of a DataReader object returns resultset?
- A. ExecuteNonQuery
- B. ExecuteReader
- C. ExecuteScalar
- D. Execute

Answer: B

Q44. Which method of a DataReader object returns a single value from a database query?
- A. ExecuteNonQuery
- B. ExecuteReader
- C. ExecuteScalar
- D. Execute

Answer: C

Q45. Which method of the DataReader is used to Insert, Update or Delete?
- A. ExecuteNonQuery
- B. ExecuteReader
- C. ExecuteScalar
- D. Execute

Answer: A

Q46. Which property of DbConnection is used to check whether connection is open?
- A. IsOpen
- B. Connected
- C. State
- D. ConnectionState

Answer: C

Q47. To use DataSet, _____ namespace should be included?
- A. System
- B. System.Data
- C. System.Sql
- D. System.Data.SqlClient

Answer: B

Q48. It is not required to open the connection if you are using DataAdapter?
- A. True
- B. False

Answer: A

Q49. To access the connection string from application configuration file, the _____ namespace should be included?
- A. System.Configuration
- B. System.Web
- C. System.Data.Configuation
- D. Configuration

Answer: A

Q50. Which one is used to execute a command in database?
- A. DbConnection
- B. DbAdapter
- C. DbCommand
- D. DbDataReader

Answer: C