

1. What is the purpose of the <assert> element in XML Schema 1.1? How can it be used?

Suggested Ans.

Assertion components constrain the existence and values of related elements and attributes.

Example

```
<xs:assert test="@min le @max"/>
```

The XML representation for assertions.

The <assert> element requires that the value of the min attribute be less than or equal to that of the max attribute, and fails if that is not the case.

2. Namespace is available for XML Schema. Show an example of using it to support inheritance or re-use of element definitions.

Suggested Ans.

There have Address Schema, Person Schema and the Instance Document for showing the re-type of namespace for XML Schema

Address schema

–http://www.cs.cornell.edu/courses/CS431/2008sp/examples/xml_schema/address.xsd

```
<xs:schema                                targetNamespace="http://carl.org/stuff1"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:complexType name="address">
    <xs:annotation>
      <xs:documentation>a generic address</xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:element name="Street" type="xs:string"/>
      <xs:element name="City" type="xs:string"/>
      <xs:element name="State">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:length value="2"/>
            <xs:enumeration value="CA"/>
            <xs:enumeration value="NY"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
    </xs:sequence>
```

```

    </xs:complexType>
</xs:schema>

```

Person schema – http://www.cs.cornell.edu/courses/CS431/2008sp/examples/xml_schema/person.xsd

```

<person
    xsi:schemaLocation="http://carl.org/stuff2
http://www.cs.cornell.edu/courses/cs431/2007sp/examples/xml_schema/person.xsd">
    <firstName>Carl</firstName>
    <lastName>Lagoze</lastName>
    <address>
        <addr:Street>108 Rd.</addr:Street>
        <addr:City>Ithaca</addr:City>
        <addr:State>NY</addr:State>
        <ZIP>14850</ZIP>
    </address>
</person>

```

Instance Document - http://www.cs.cornell.edu/courses/CS431/2008sp/examples/xml_schema/person.xml

```

<xs:schema
    targetNamespace="http://carl.org/stuff2"
    elementFormDefault="qualified">
    <xs:import
        namespace="http://carl.org/stuff1"
        schemaLocation="http://www.cs.cornell.edu/courses/cs431/2007sp/examples/xml_schema/address.xsd"/>
    <xs:complexType name="myAddress">
        <xs:complexContent>
            <xs:extension base="addr:address">
                <xs:sequence>
                    <xs:element name="ZIP"/>
                </xs:sequence>
            </xs:extension>
        </xs:complexContent>
    </xs:complexType>
    <xs:element name="person">
        <xs:complexType>
            <xs:sequence>
                <xs:element name="firstName" type="xs:string"/>
                <xs:element name="lastName" type="xs:string"/>
                <xs:element name="address" type="myAddress"/>
            </xs:sequence>
        </xs:complexType>
    </xs:element>
</xs:schema>

```