M. S. (Library and Information Science) 2016-18
Second Year, Semester III (Mid-Term)

Paper 16: Web Technology and Web based Information Services
Date: 15th Sep 2017

Duration: 1.5 hours   **Full marks: 40**

Answer any 4 questions. All questions carry equal marks.

1. Write major features of HTML5.

2. Describe major features in CSS3, including pseudo classes.

3. Explain the difference between DTD and XML Schema.

4. Write DTD for which the following XML document will be valid:

```
<?xml version="1.0"?>
<lib_records>
  <book>
      <title>The five laws of library science</title>
      <author>
          <first_name>S. R.</first_name>
          <last_name>Ranganathan</last_name>
      </author>
      <year>2007</year>
  </book>
  <book/>
</lib_records>
```

5. Write an XML document which must validate against the following XML Schema:

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="record">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="title" minOccurs="1" type="xs:string"/>
      <xs:element name="author" maxOccurs="4" type="xs:string"/>
      <xs:element name="imprint" type="imprintType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:complexType name="imprintType">
  <xs:sequence>
    <xs:element name="place" minOccurs="1" type="xs:string"/>
    <xs:element name="name" minOccurs="1" type="xs:string"/>
  </xs:sequence>
  <xs:attribute name="year" type="xs:int"/>
</xs:complexType>
</xs:schema>
```