NAME: DEEBIKA M
DEPT-SECTION: IT-A
REG.NO: 312217205019

1.Write a use case in SOA and fit a XML data to be used in the scenario.
USE CASE SCENARIO:

Ans: This scenario for SOA consists of School database.
The entities involed are the: For instance, a student may be characterized by an id, name, Date of birth and marks.

XML CODE:

```
<? XML version= “1.0” encoding=”UTF-8”?>
<school>
<student>
<id> 01</id>
<name>Deebika</name>
<dob>24-03-2000</dob>
<marks>
<tamil>97</tamil>
<english>98<english>
<maths>100</maths>
<science>99<science>
</marks>
</student>
</school>
```

2. For the XML data write the corresponding DTD used for vallidation
DTD CODE:

```
<? XML Version=”1.0” encoding= “UTF-8” ?>
<!DOCTYPE note [
<!ELEMENT school (( student ->id, name, dob) (marks->tamil, english, maths, science))>
<!ELEMENT id (#PCDATA)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT dob (#PCDATA)>
<!ELEMENT tamil (#PCDATA)>
<!ELEMENT english (#PCDATA)>
<!ELEMENT maths (#PCDATA)>
<!ELEMENT science (#PCDATA)>
]
```

3. Make at least 5 improvements to the XML validation done with DTD using schema.
DTD validation using Schema

```
<xs:element name=”student”>
<xs:complexType>
<xs:sequence>
<xs:element name=”id” type=”xs:positive integer”/>
<xs:element name=”name” type=”xs:string”/>
<xs:element name=”dob” type=”xs:date”/>
<xs:element name=”tamil” type=”xs: positive integer”/>
<xs:element name=”english” type=”xs: positive integer”/>
<xs:element name=”maths” type=”xs:positive integer”/>
<xs:element name=”science” type=”xs:positive integer”/>

</xs:sequence>
</xs:complexType>
</xs:element>
```