XML 1

Department of Computer Science and Engineering
MNNIT Allahabad, Allahabad
End semester Examination
XML and Application(CA-3202)
MCA 2nd semester

Max Time: 03:00hr **Max Marks: 60**

- ***If you need to make any assumption, state them clearly.***
- ***All Questions are compulsory.***
- ***Questions carry marks shown against them.***

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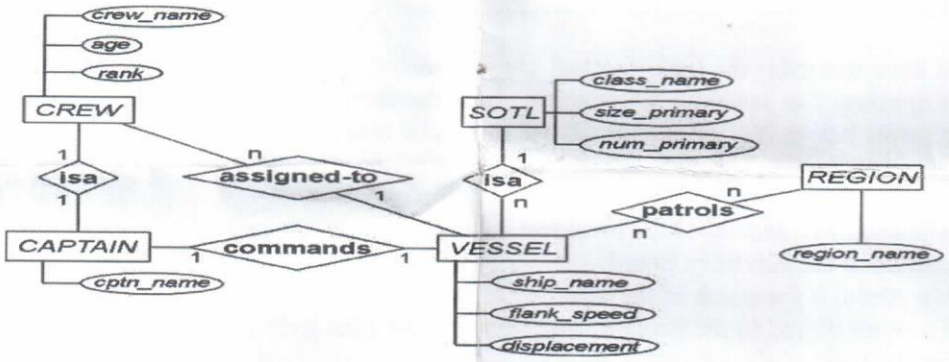
1. What is DTD and what is its purpose? Write down the DTD corresponding to the following XML document and XPATH expression for the following. **[10+5]**
a) Find the attribute of course element.
b) Find the last name of the person whose age is 25.

```
<?xml version="1.0"?>
<persons>
<person age='25' >
<name>
<firstname > abc </firstname>
<lastname> xyz </lastname>
</name >
<email> abc@gmail.com </email>
<sub course="MCA"> &XML;</sub>
</person>
<person age='22'>
<name>
<firstname> pqr </firstname>
<lastname> uvw </lastname>
</name>
<phone> 912345678 </phone>
<sub course="MCA"> &XML;</sub>
</person >
</persons>
```

2. Develop an XML Schema (XSD or XDR) for an ER Diagram given in Figure1. **[5+5]**



3. A sample XML document is given in Figure 1. below representing product details and containing full details of single product such as product name, description, price and **[10+10]**

quantity on hand and manufacturer.

a) Write a program to find the content of XML document as given below in Figure1 using XML DOM Parser API.
b) Write an XSLT document that would transform the XML document given in Figure 1 into html document as shown in Figure 2. The details about the product priced higher than Rs 50 are to be displayed in red and rests are to be displayed in green.

```
< ? xml version ="1.0"?>
<productdata>
        < Product prod-id="p001" category="toy">
                <productname > MiniBus </productname>
                <description> This is a toy for children aged 4 and
        above</description>
                <price> 75 </price>
                <quantity>100</quantity>
                <Manufacturer>LG Comapany</Manufacturer>
        </Product>

< Product prod-id="p002" category="book">
                <productname > The English Reader Book</productname>
                <description> This is a book set ducting NCRT
        Course</description>
                <price> 19 </price>
                <quantity>75</quantity>
                <Manufacturer>Barbie Company</Manufacturer>
        </Product>
<Product>.....</Product>
```

Figure 1.

ProductName: MiniBus Description: This is a toy for Children aged 4 and above Price: 75 Quantity: 100
ProductName: The English Reader Book Description: This is a book set during NCRT Course Price: 19 Quantity: 75

4. You have to model the local football club1 Mumbai by drawing a semantic net and also annotate the semantic information about the team using RDF, to represent the statements below. You should make use of special resources (like bags, sequences or alternatives). **[7+8]**

a) The club is based in Mumbai, India.
b) Manager: Mr. Manish is the President of the Club Committee, and Mr. Rahul is the Chairman of the Advisory Board.
c) Mr. Abdul is the coach of the team.
d) The club played in the Second Indo Division, the First Indian League and the Fifth Indian League.
e) Rihan, Jagpreet, and Abhinav are team players.
f) Aakash, Malik and Rohan are former famous coaches.
g) Manager, coach and players are members of the club1 Mumbai.
h) Every player is trained by the coach.