

DESCRIPTION

SUTDENT'S NAME:	RICHA BAKSHI
PROGRAM:	Web design
DATE:	18-09-2021
TEACHER'S NAME:	SUTHAKHAR
COURSE:	Data Processing Technologies (TTD)
TYPE OF EXAM:	Mid-term
DURATION:	3 hours
AUTHORIZED MATERIAL:	None

OTHER INSTRUCTIONS FROM THE TEACHER

The exam has **5** pages including the cover page. In accordance with the syllabus, the evaluation is worth **20** % of the final grade.

Penalties imposed on a student accused of an attempt at plagiarism could include, but are not limited to, a grade of 0% for examination or for the entire course. The student could also be either put on probation, suspended and / or expelled from the program.

OTHER INFORMATION

Prepared by : **Jean-Guy Turgeon**

Revised by : **M.-J. Villeneuve**

Approved by : _____

Good luck !

Question 1

/3

What is XML used for?

Ans. XML stands for extensible Markup Language. It's a language that's used to describe data. Data stored in XML is known as being "self-defining." This means that the structure of the data is embedded within the data itself.

XML is a format to store data along with its structure. This feature makes it useful for many things, including transferring data, formatting documents, creating layouts, and more. Let's take a closer look at what XML is used for.

Question 2

/3

Using XML tags, write an example illustrating the XML structure.

Ans. <root>

<child>

<subchild>.....</subchild>

</child>

</root>

Example:-

<?xml version="1.0" encoding="utf-8"?>

<school>

<name> convent of jesus and mary </name>

<classes> till twelve </classes>

<medium> English </medium>

<teachers> graduates </teachers>

</school>

Question 3

/1

What is an XML prolog?

Ans. Extensible markup language (XML) prolog is the portion of every XML system that is present before the system's root element. This is the part of the XML system in which information about the XML programming is defined.

Question 4

/3

Which of the following tags can't be used in a XML document?

(Circle the letter corresponding to your answer)

a) <xmlroot>

b) <myTag>

c) <tag>

d) <item15>

e) None of the above.

Question 5

/5

It is sometimes possible to code elements in two different ways, transforming metadata in data. Re-code the following example to transform metadata in data.

```
<message date="2020-01-22">
  <to>Students</to>
  <from>Teacher</from>
</message>
```

Ans.

Data tag attribute inside message tag can be used as data tag inside message tag as follows

#1

```
<message >
  <data> 2020-01-22 </data>
  <to> Students </to>
  <from>Teacher</from>
</message>
```

#2

```
<message >
  <date>
    <year> 2020 </year>
    <month> 01 </month>
    <day> 22 </day>
  </date>
  <to> Students </to>
  <from>Teacher</from>
</message>
```

Question 6

/3

Briefly explain what is CDATA used for.

Ans. *XML Character data (CDATA) is defined as Blocks of texts and a type of XML Node recognized by the mark-up languages but are not parsed by the parsers. This is used to solve the inclusion of the mathematical term in the XML document. To pass a math equation <, > CDATA is used to include in the code section. DATA is meant only for the group of text specifying mark-up like characters. The CDATA section includes all the mark-up characters exactly what they are when they are passed it to the application and eliminates nesting. In simple terms, all the entity references and XML tags are excluded by the processor while parsing and treated as character data.*

Question 7

/2

Briefly explain what is XSL language.

Ans. *XSL is a language for expressing style sheets. An XSL style sheet is, like with [CSS](#), a file that describes how to display an XML document of a given type. XSL shares the functionality and is compatible with CSS2 (although it uses a different syntax). Styling requires a source XML documents, containing the information that the style sheet will display and the style sheet itself which describes how to display a document of a given type.*

Question 8

/3

Briefly explain what the following code lines would actually do.

```
<xsl:for-each select="bookstore/book">  
<xsl:sort select="year"/>
```

Ans. *<xsl:for-each select="bookstore/book">
This <xsl:for-each iterates through all sub elements <book> under <bookstore>
and then you can apply transformation On each book
<xsl:sort select="year"/>*

xsl:sort it sorts the results to display based on the selected value

Question 9

/2

Just like it is mandatory when parsing external files, what is mandatory to parse XML using JavaScript (or jQuery)?

Ans. In order to parse an external file in jQuery an Ajax request must first be made.

Question 10

/2

Write what language has been used to code the following lines of codes.

```
{  
  name : "John Smith",  
  age : "43",  
  city : "Montreal"  
}
```

Ans. JSON

Question 11

/5

Based on the following lines of codes, complete the jQuery code so the DIV would show the result « John Smith is 43 ».

```
<div> </div>  
  
<script>  
let data = { "name" : "John Smith", "age" : "43", "city" : "Montreal" };  
let result = JSON.parse(data);  
  
$("div").append(data.name+"is"+data. Age);  
  
</script>
```

Question 12

/3

Retrieving JSON data from an external file, using jQuery, what shorthand method could be used?

Ans .

To work around with the external files of json we use the JQuery ajax shorthand methods. Ajax Shorthand has 5 methods in total but to work around with JSON files it has method named JQuerygetJSON().

*This query will load server files that are JSON encoded. The syntax for this method is:-
\$.getJSON(url, function[data])*

This JQuery shorthand is equivalent of using the JQuery.ajax() method.

The contains:-

```
$.ajax({  
url: url,  
datatype: 'json',  
data: data,  
success: callback  
});
```

Therefore for retrieving JSON data from an external file we can make use of the JQuery HTTP get request from

*the server and the shorthand that we can use to get the JSON file is by using the JQuery.getJSON() method in
ajax.*

Question 13/5

Based on the following JSON data, complete the code so the result showing in DIV would be «Jane Doe»

```
{  
users: [  
{  
one : "John Smith", two : "Jane Doe",  
}  
]  
}
```

Question 13

/5

Based on the following JSON data, complete the code so the result showing in DIV would be «Jane Doe»

```
{
  users: [
    {
      one : "John Smith",
      two : "Jane Doe",
    }
  ]
}
```

```
<div> </div>
```

```
<script>
$.getJSON('myfile.json', function(data) {
```

```
let result = _____;
```

```
$("#div").append(result);
```

```
}
</script>
```

Ans

You have to first just go through array then object of the same.

```
<div></div>
```

```
<script>
```

```
$.getJSON('myfile.json',function(data){
$.each(data.users,function(index, element){
  let result = element.two;
});
});
$("#div").append(result);
}
</script>
```