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DESCRIPTION

SUTDENT'S NAME:	Gagan Kapila
PROGRAM:	**Web design**
DATE:	18-09-2021
TEACHER'S NAME:	Suthakhar Ponnambalam
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 evaluationis 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

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

Approved by : _____

Good luck !

Question 1

/3

What is XML used for?

Answer :

XML is a markup language for storing and transporting data that is both human and machine readable. While XML has been less common in recent years (it has been replaced by JSON), it continues to play an important role in many different IT structures and is used in many facets of web growth.

/3

Question 2

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

Answer :

```
<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?

Answer : The XML prologue is optional, so if it appears, it must be placed at the beginning of the text and does not have a closing tag.

Question 4

/3

Which of the following tags can't be used in a XML document?
(color 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>
```

Answer :
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>
<to> Students </to>
<from>Teacher</from>
</date>
</message>
```

Question 6

/3

Briefly explain what is CDATA used for.

Answer :
CDATA, which stands for Character Data, is classified as blocks of plain text that are not parsed and would otherwise be known as markup. When you use CDATA, you are asking the parser about a certain part of the code. Since there is no script in the paper, it must be treated as plain text. This is particularly useful for text that contains symbols and special characters.

Question 7

/2

Briefly explain what XSL language is.

Answer :

XSL (Extensible Stylesheet Language), previously known as Extensible Style Language, is a language used to create a style sheet that specifies how data sent through the Web using the Extensible Markup Language (XML) should be interpreted to the consumer.

Question 8

/3

Briefly explain what the following code lines would actually do.

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

Answer :

```
<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)?

Answer :

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

Question 10

/2

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

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

Answer : 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 **JQuery.getJSON()**.
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 retreiving 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",
}
]
}
```

<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>