

Time: 3 Hours

# Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)



## SECOND SEMESTER M.TECH. (CSIS/CSE)

### END SEMESTER EXAMINATIONS, MAY 2016

#### SUBJECT: WEB SERVICES (ELECTIVE II) [CSE 562] REVISED CREDIT SYSTEM

DATE: 14-05-2016

MAX. MARKS: 50

#### Instructions to Candidates:

- \* Answer ANY FIVE FULL questions.
- Missing data, if any, may be suitably assumed.

1.A. Consider the XML file for golfer's inventory given in Fig.Q.1.A.1.

```
<?xml version="1.0"?>
<golfers>
  <golfer skill="excellent" handicap="4" clubs="Taylor Made" id="1111">
    <name>
      <firstName slaute="Mr.">Heedy</firstName>
      <lastName>Wahlin</lastName>
    </name>
    <favoriteCourses>
      <course city="Pinetop" state="AZ" name="Pinetop Lakes CC"/>
      <course city="Phoenix" state="AZ" name="Ocotillo"/>
      <course city="Snowflake" state="AZ" name="Silver Creek"/>
    </favoriteCourses>
  </golfer>
  <golfer skill="moderate" handicap="8" clubs="Taylor Made" id="2222">
    <name>
      <firstName slaute="Mr.">Dan</firstName>
      <lastName>Wahlin</lastName>
    </name>
    <favoriteCourses>
      <course city="Pinetop" state="AZ" name="Pinetop Lakes CC"/>
      <course city="Pinetop" state="AZ" name="White Mountain CC"/>
      <course city="Springville" state="UT" name="Hobble Creek"/>
    </favoriteCourses>
  </golfer>
</golfers>
```

#### Fig.Q.1.A.1: Sample Xml File

Write the XPATH expressions for the following natural language description with respect to the XML file in Fig.Q.1.A.1. Justify the validity of the XPATH expression in your own words.

(i) Select top two favorite courses of all golfers.

(ii) Select <firstName>, if any of the attribute of the <golfer> element has "8" as its value.

(iii) Select the last favorite course of each golfer.

(iv) Select <firstName> of all golfers whose skill level is moderate.

(v) Select <lastName> elements of all golfers whose <firstname> is "Heedy" and has "Phoenix" city as one of his favorite course.

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2.A. Create a XSL file to convert XML file shown in Fig.O.1.A.1 to the XHTML shown in Fig.Q.2.A.1. Display only those names whose skills are excellent. 5M

HeedyWahlin	Pinetop
HeedyWahlin	Phoenix
HeedyWahlin	Snowflake

Fig.Q.2.A.1 2.B. Explain SOA. 3M 2.C. Write short notes on web service protocol stack. 2M

3.A. Consider a service called "TranslationService". Using this service, any website or desktop application can translate text from one language to another.

The service provides the following operation:

- TranslateText: Takes "TextToTranslate", "FromLanguage" and "ToLanguage" as parameters and returns "TranslatedText". This operation will require the user to send valid username and password as SOAP header.
- (i) With other suitable assumptions, write the WSDL document to describe this service. 5M 3M
- (ii) Write all the WCF contracts for this service.
- 3.B. Which HTTP methods are used by the REST Service for CRUD operations on resources. 2M

4.A. Explain any five key WS-* Security Standards.	5M
4.B. Explain with example any three features added in XML Schema 1.1.	3M
4.C. Explain CRUD operations in MongoDB.	2M

5.A. Write the JavaScript code to parse XML shown in Fig.Q.1.A.1 using DOM and display the following:

- Display full names of all golfers.
- Display last names along with the city of their favorite course.
- Display different skills present in the xml.
- Display number of golfers.

5.B.	Explain any	five differences	between SOAP	1.1 and SOAF	<b>?</b> 1.2	5M

6.A. Explain the following:

(i) WebSphere MQ	2M
(ii) BSON	2M
(iii) Validating an XML Document in C#	2M
(iv) Javascript timing events	2M
(v) XML Namespaces	2M

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5M