



Reg. No.

# Manipal Institute of Technology

## MANIPAL

Constituent Institute of Manipal Academy of Higher Education

II SEMESTER M. TECH. (COMPUTER SCIENCE AND ENGINEERING)

END SEMESTER EXAMINATIONS, APRIL 2018

SUBJECT: ELECTIVE III - WEBSERVICES [CSE 5244]

REVISED CREDIT SYSTEM

(27/04/2018)

Time: 3 Hours

Max. Marks: 50

### Instructions to Candidates:

- Answer **ALL** questions & missing data may be suitably assumed.

1.A. Write the XML Schema Document for the sample XML file shown in Fig.Q.1.A.

```
<?xml version="1.0" encoding="utf-8"?>
<Jobs>
  <Job id="3" name="GBackup" category="Development">
    <Update>
      <Status>Open</Status>
      <Modified>Mon, 06 Feb 2017 20:27:45 -0400 MET DST</Modified>
      <Salary>1000.00</Salary>
    </Update>
    <Contact>
      <Person>Nathan</Person>
      <Email>nathan@manipal.edu</Email>
    </Contact>
    <Skills>C#, Python</Skills>
    <Details>System that will allow a super user to backup files</Details>
  </Job>
  <Job id="4" name="GBackup" category="Testing">
    <Update>
      <Status>Open</Status>
      <Modified>Mon, 06 Feb 2017 21:23:42 -0400 MET DST</Modified>
      <Salary>800.00</Salary>
    </Update>
    <Contact>
      <Person>David</Person>
      <Email>david@manipal.edu</Email>
    </Contact>
    <Skills>Selenium, Load Runner</Skills>
    <Details>Test the system that will allow a super user to backup files</Details>
  </Job>
</Jobs>
```

Fig.Q.1.A.

5M

- 1.B. Write the JavaScript code to parse XML shown in Fig.Q.1.A. using DOM and display the following:
- Display status and modified date of “Development” jobs.
  - Display number of jobs
  - All job names along with name of the contact person.
- [NOTE: XML shown in Fig.Q.1.A is just a sample to show the structure of XML. The javascript code written should work when the values are changed] 5M
- 2.A. Explain any five differences between SOAP 1.1 and SOAP 1.2. 5M
- 2.B. Explain any five key WS-\* Security Standards. 5M
- 3.A. A web service named “AmazonService”, contains an operation “GetProductStock”, which takes product name as the parameter and returns quantity available. This operation will require the user to send valid username and password as SOAP header. With other suitable assumptions, write the WSDL document to describe this service. 5M
- 3.B. Write all the WCF contracts for the service described in Q.3.A. 5M
- 4.A. Explain any five characteristics of a REST System. 5M
- 4.B. What is cloud computing? Explain three cloud service models with example. 5M
- 5.A. With a neat diagram, explain orchestration and choreography in SOA. 5M
- 5.B. Explain any five common types of policies used in SOA governance. 5M

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