| Name: | |
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| Enrolment No: | UPES<br>UNIVERSITY WITH A PURPOSE |

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**
**End Semester Examination, December 2019**

Course:   XML Programming                                   Semester: 5th
Program:  B. Tech CSE + OSS                                Time 03 hrs.
Course Code: CSEG3011                                       Max. Marks: 100

Instructions:

### SECTION A

| S. No. | | Marks | CO |
|---|---|---|---|
| Q 1 | Explain the functioning of the following datatypes :<br>   a)  maxExclusive<br>   b)  enumeration<br>   c)  Pattern<br>   d)  totalDigits | 4 | CO3 |
| Q2 | Draw the tree structure for the following<br><br>```xml<br><Employee><br>    <Name><br>        <First>Lassi</First><br>        <Last>Lehto</Last><br>    </Name><br>    <Email>Lassi.Lehto@fgi.fi</Email><br>    <Organization><br>        <Name><br>            Finnish Geodetic Institute<br>        </Name><br>        <Address><br>            PO Box 15,<br>            FIN-02431 Masala<br>        </Address><br>        <Country CountryCode="358">Finland</Country><br>    </Organization><br></Employee><br>``` | 4 | CO2 |
| Q3 | Describe the properties of the following :<br>   a)  void open(method, URL)<br>   b)  setRequestHeader(header,value) | 4 | CO3 |
| Q4 | Define the request response type of operation  defined by WSDL | 4 | CO5 |
| Q5 | Name four applications of XML | 4 | CO1 |
| **SECTION B** | | | |
| Q6 | Explain the concept of AJAX. Explain the Synchronous and Asynchronous model | 10 | CO4 |

| Q7 | Explain the roles of Web services and briefly describe the protocol stack | **10** | **CO5** |
|---|---|---|---|
| Q8 | Differentiate between DTD and XSD and give an example to justify the answer | **10** | **CO3** |
| Q9 | Explain the concept of XML Parser with the help of a suitable diagram. Briefly describe<br><br>OR<br><br>Illustrate the following with the help of the code :<br>   a) Design the restriction for an element with acceptable values only<br>   b) Set the restrictions for a password with length 8 characters with upper or lower case alphabets or numerals 0-9 | **10** | **CO2** |
| **SECTION-C** | | | |
| Q 10 | Explain the concept of SOAP. Give the reasons for its usage and rule out the rules to write a SOAP message .Justify it with an example. | **20** | **CO5** |
| Q11 | a) Write a case study on a well formed and validated document of XML by justifying with an example<br><br>OR<br><br>b) What is web service and explain its working? Justify with an example | **20** | **CO4** |