UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: XML Programming   **Semester** : 6th
Program: Btech 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 : a) maxInclusive b) White space c) Pattern d) minExclusive	4	CO3
Q2	Draw the tree structure for the following ``` <bookstore> <book category = "COOKING"> <title lang = "en">Everyday Italian</title> <author>Giada De Laurentiis</author> <year>2005</year> <price>30.00</price> </book> <book category = "CHILDREN"> <title lang = "en">Harry Potter</title> <author>J K. Rowling</author> <year>2005</year> <price>29.99</price> </book> <book category = "WEB"> <title lang = "en">Learning XML</title> <author>Erik T. Ray</author> <year>2003</year> <price>39.95</price> </book> </bookstore> ```	4	CO2
Q3	Describe the properties of the following : a) void send() b) responseXML	4	CO4
Q4	Define the major elements of WSDL	4	CO5
Q5	Explain the replacement entity for each symbol in XML : a) > b) < c) & d) "	4	CO1

	SECTION B		
Q6	Explain briefly how AJAX allow send and receive data over the internet.	**10**	**CO4**
Q7	Explain the concept of SOAP and why is it used	**10**	**CO5**
Q8	Compare and contrast how XSD is much better than DTD and give an example to justify the answer	**10**	**CO3**

Q9	Describe why XML needs a parser with the help of a neat diagram.
	OR
	
	Illustrate the following with the help of the code :
	   a) Design the restriction to remove white spaces
	   b) Set the restrictions for forming a pattern with lower case alphabet followed by upper case alphabet.
		10	**CO2**

	SECTION-C		
Q 10	Describe the working principle of AJAX in extracting XML documents from any web page .Justify with the help of a diagram.	**20**	**CO5**
Q11	Explain the application of XML in the following arenas: a) video channels b) Mathematics c) Multimedia d)Open source OR Consider the details of students given below:	**20**	**CO3**

Element Name	Attributes and Characteristics
student	Required: externalId, firstName, lastName Optional: middleName, email
studentAcadAreaClass	[1 ==> N entries]
acadAreaClass	Required: academicArea, academicClass
studentMajors	[1 ==> N entries]
major	Required: academicArea, code
studentMinors	[0 ==> N entries]
minor	Required: academicArea, code
studentGroups	[0 ==> N entries] Required: group
studentAccomodations	[0 ==> N entries] ==> Required: accommodation
External entity: University	Value : UPES

	For the data describe an external DTD and xml file for various students		