Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-IV • EXAMINATION- SUMMER • 2014

Subject Code: 742301 Date: 04-06-2014

Subject Name: Web 2.0 & Semantic Web

Time: 02:30 pm - 05:00 pm Total Marks: 70

Instructions:

1. Attempt all questions.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1 (a) 07

- (i) What is the problem if from the Document object, a user navigates through the Document Object Model(DOM) using attributes available on all the nodes?
- (ii) Write a Javascript to have a textbox and a button. If this button is pressed then it will alert the text entered in the textbox and if textbox is empty, it will alert a message õtext box emptyö. Show the use of methods available with document object.
- (iii) How Javascript differentiates between a declared variable that has been assigned no value and a variable that has not been declared?

(b) Define entropy and information gain.

Define chir	opy and information gain			
Film	CountryOfOrigin	BigStar	TypeOfFilm	Success/Failure
1	India	yes	Scifiction	Success
2	India	no	comedy	Failure
3	India	yes	comedy	Success
4	Europe	no	comedy	Success
5	Europe	yes	Scifiction	Failure
6	Europe	yes	history	Failure
7	Australia	yes	comedy	Failure
8	SriLanka	no	Scifiction	Failure
9	Europe	yes	comedy	Success
10	India	yes	history	Success

- (i) What is the entropy for above training data?
- (ii) Calculate information gain for countryoforigin, BigStar, TypeOfFilm.
- (iii) For India films, selection of which attribute gives 0 entropy?
- Q.2 (a) Justify õAll XML documents must be well formed to be accepted by XML parsersö.
 Write an XML music CD. Include album, artists, time. Explain elements, attributes and XML namespace.
 - (b) How a user can intercept the click of button in JavaScript to load books.xml document that contains names of books and populate an HTML list below the button without any page reload and no server side logic?

OR

07

	 (b) Assume that the user original data is in XML format. What should be written stylesheet document to achieve the following format? Rain in the year 2013(cm) North 						07		
		54 Fact							
		East 80							
		South 72							
		73 West							
		64							
Q.3	(a)	1							
	(b)	disappointing them? What is screen scraping? Write benefits and drawbacks. OR							
Q.3							07		
	(b)	Write webm	nining classification	on.			07		
Q.4	(a)	Explain portType, binding,, service elements of WSDL(Web service description					07		
	(b)	language). What are the drawbacks of XML? Write a JSON document that contains title and author information for book and show how a user can get author information of second book?							
Q.4	(a) (b)	What are the key features of microformats? Write an XML called city document having information about 3 cities with elements name, population, longitude. Write XPATH expression for following. a. Address the population element of the second city. b. Select the name of the city that follows a city whose city name starts with the letter :Aø							
Q.5	(a)	-					07		
	(b)	 (i) Part of Step 2 of porterøs algorithm m>0 ATIONAL ATE m>0 TIONAL TION What is the value of m and what action will be taken for the words relational, conditional, rational. (ii) What is ontology? Explain structure of RDF statement. OR 							
Q.5	(a)	Explain the	a priori algorithn	n.			07		
	(b)	(i) Give	en an abstract	term-document	matrix, calculat	te normalized term	07		
			document weight	matrix.					
		-	D0	0 K0	K1 0	K2 5			
		-	D1	4	1	1			
		-	D2	0	3	0			

(ii) Which are the most important ontology languages for the web?