GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VII (Old) EXAMINATION – WINTER 2019

Subject Code: 170708   **Date: 23/11/2019**
Subject Name: Web Data Management
Time: 10:30 AM TO 01:00 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)**	Describe term Ontology. How RDF can be used for ontology.	**07**
	(b)	Explain Document Type Definition with one example. Link with XML document and demonstrate different restrictions user can apply on XML using DTD.	**07**
Q.2	**(a)**	Discuss use of Xml Style Sheet with XML document with one example.	**07**
	(b)	Compare DTD and XSD. Give example of each one.	**07**
		OR	
	(b)	What is XPath Axes? Describe following Axes in brief. 1) Axes 2) Sibling 3) descendant 4) parent 5) attribute 6) self 7) preceding.	**07**
Q.3	**(a)**	Discuss how XML technology is useful for Web data management.	**07**
	(b)	Explain web graph mining with an example.	**07**
		OR	
Q.3	**(a)**	Discuss FLWOR with respect to XQuery with advanced features. Give one example.	**07**
	(b)	What is XQuery? Describe doc() and collection() function with suitable example.	**07**
Q.4	**(a)**	Explain Web crawling process in details.	**07**
	(b)	Describe failure management in distributed system.	**07**
		OR	
Q.4	**(a)**	Differentiate ranked trees and unranked trees.	**07**
	(b)	Explain XLink and XPointer with example.	**07**
Q.5	**(a)**	Discuss Required properties of a distributed system.	**07**
	(b)	Explain in detail: Ontology-based mediators.	**07**
		OR	
Q.5	**(a)**	Explain Fragmentation of XML document in detail.	**07**
	(b)	Explain following terms with example in Distributed system. 1) Reliability 2) Scalability 3) Availability 4) Efficiency	**07**

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