

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014

Subject Code: 170708

Date: 31-05-2014

Subject Name: Web Data Management

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) Explain Web Data Management with XML. **07**
(b) "An XML document is a labeled, unranked, ordered tree." Explain with example. **07**
- Q.2** (a) Express the following formulas in MathML: **07**
1) $x^2 + 4x + 4$ 2) $x^{a+2} + y$
(b) Discuss importance of DTD and XSD with example. **07**
- OR**
- (b) How semistructure data model resolves issues in existing web data management? **07**
- Q.3** (a) Discuss FLWOR expression with example. **07**
(b) What is XPath Axes? Describe following Axes in brief. **07**
1) Axes 2) Sibling 3) descendant 4) parent 5) attribute 6) self 7) preceding 8) descendant-or-self 9) child 10) ancestor
- OR**
- Q.3** (a) Discuss XPath and XQuery With examples. **07**
(b) Explain Navigational XPath and XQuery Syntax with example. **07**
- Q.4** (a) Differentiate between ranked trees and unranked trees. **07**
(b) Explain XML evaluation techniques. **07**
- OR**
- Q.4** (a) What is Ontology? Discuss RDF with example. **07**
(b) Explain Graph semistructured data and graph bisimulation. **07**
- Q.5** (a) What is Distributed System? Discuss failure management in brief. **07**
(b) Explain Web graph mining and hot topics in web search. **07**
- OR**
- Q.5** (a) Explain Ontology based mediation with example. **07**
(b) Discuss Required properties of a distributed system. **07**
