

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (OLD) EXAMINATION – WINTER 2018

Subject Code: 170708

Date: 15/11/2018

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)** What is DTD? How DTD is declared in XML document? Explain with an example. **07**
- (b)** Explain XLink and XPointer in detail, along with an example. **07**
- Q.2 (a)** What is FLWOR expression? Explain it with syntax and suitable example. **07**
- (b)** Define: XQuery. Explain XQuery syntax with an example. **07**
- OR**
- (b)** Discuss required properties of a distributed system. **07**
- Q.3 (a)** Explain web graph mining with an example. **07**
- (b)** Explain XML query evaluation techniques in brief. **07**
- OR**
- Q.3 (a)** Explain Automata on Ranked Trees. **07**
- (b)** Write a short note on Peer-to-Peer data management system. **07**
- Q.4 (a)** Explain Failure management in distributed system. **07**
- (b)** Explain following terms:
- i. OWL **03**
- ii. Web Crawler **04**
- OR**
- Q.4 (a)** What is semi structured data? “XML document is a semi structured data model”- Justify with suitable example. **07**
- (b)** What is Ontology? Describe RDF, RDFs in brief. **07**
- Q.5 (a)** What is XML Typing? Why it is essential in web data management? **07**
- (b)** What is XPath? Describe XPath data model with an example. **07**
- OR**
- Q.5 (a)** What is the goal of data integration? Differentiate Virtual versus Materialized data integration **07**
- (b)** Write down the steps to develop ontology. Discuss the rules of thumb for ontology development. **07**
