

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– VIII (New) EXAMINATION – WINTER 2019****Subject Code: 2180713****Date: 29/11/2019****Subject Name: Web Data Management****Time: 02:30 PM TO 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) What is DTD? How DTD is declared in XML document? Explain with an example. **03**
 (b) Write short note on XML Schema. **04**
 (c) Explain XML Data Model with example. **07**
- Q.2** (a) Explain Ontology based mediation with example **03**
 (b) Differentiate well-formed and valid XML document. **04**
 (c) What is XPath? Describe XPath data model with an example. **07**
- OR**
- (c) Explain XQuery syntax with suitable example. **07**
- Q.3** (a) Differentiate between ranked trees and unranked trees. **03**
 (b) Explain OWL with an example. **04**
 (c) What is web crawling? Explain in details. **07**
- OR**
- Q.3** (a) Explain following terms with example in Distributed system. 1) Reliability 2) Scalability 3) Availability. **03**
 (b) Discuss FLWOR expression with example. **04**
 (c) What is Ontology? Discuss RDF with example. **07**
- Q.4** (a) Discuss failure management in distributed system. **03**
 (b) What is the use of Graph Bisimulation in Web Data Management? Discuss in brief **04**
 (c) Explain web graph mining with an example. **07**
- OR**
- Q.4** (a) Explain filtering with an example. **03**
 (b) Discuss required properties of distributed system. **04**
 (c) Explain XML evaluation techniques. **07**
- Q.5** (a) What is the significance of tree based form and serialized form of XML? **03**
 (b) Explain Fragmentation of XML document in detail. **04**
 (c) Discuss Required properties of a distributed system **07**
- OR**
- Q.5** (a) Write down basic building blocks of XML **03**
 (b) Explain XLink and XPointer with example. **04**
 (c) Discuss the goals of Data integration in web data management. **07**
