

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2018**

**Subject Code: 2180713**

**Date: 07/05/2018**

**Subject Name: Web data Management(Departmental Elective - III)**

**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) Write down the syntax rules for XML declaration. **03**  
(b) “XML document is a semi structured data model”- Justify with suitable example. **04**  
(c) Explain XML in brief. Differentiate well-formed and valid XML document. **07**
- Q.2** (a) How DTD is declared in XML document? Explain with an example. **03**  
(b) Explain XQuery syntax with suitable example. **04**  
(c) What is FLWOR expression? Explain it with syntax and suitable example. **07**
- OR**
- (c) What is Ontology? Discuss RDF with example. **07**
- Q.3** (a) Explain XML attributes syntax with an example. **03**  
(b) Explain OWL. **04**  
(c) Discuss the Web Crawling process in detail. **07**
- OR**
- Q.3** (a) Discuss Peer-to-Peer Data Management Systems. **03**  
(b) Differentiate between global as view and local as view mediation. **04**  
(c) What is XML Typing? Why it is essential in web data management. **07**
- Q.4** (a) Discuss Graph Bisimulation technique in brief. **03**  
(b) Explain XML query evaluation techniques in brief. **04**  
(c) Describe following Axes in brief: **07**  
(1) child (2) ancestor (3) descendant (4) parent (5) attribute  
(6) self (7) preceding
- OR**
- Q.4** (a) Differentiate between ranked trees and unranked trees. **03**  
(b) What is distributed system? Write down the advantages of distributed system. **04**  
(c) Explain web graph mining with suitable example. **07**
- Q.5** (a) Explain filtering with an example. **03**  
(b) Explain XLink and XPointer. **04**  
(c) What is the goal of data integration? Differentiate Virtual versus Materialized data integration **07**
- OR**
- Q.5** (a) Explain XML identifiers. **03**  
(b) Discuss the rules of thumb for ontology development. **04**  
(c) What is XPath? Describe XPath data model with an example. **07**