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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(IT) (2011 Onwards) (Sem.-5)
DATABASE MANAGEMENT SYSTEM
Subject Code : BTIT-503
Paper ID : [A2124]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A**1. Answer briefly :**

- a) What is Data Independence of DBMS?
- b) What is SQL Dependency?
- c) Write a short note on relational algebra.
- d) Explain why 4NF is more desirable than BCNF with the help of an example.
- e) What are Triggers?
- f) Define Embedded SQL.
- g) What are applets in XML?
- h) How XQuery is used in XML?
- i) What is difference between SQL and NoSQL?
- j) What is meant by transaction management?

SECTION-B

2. Give the introduction of database interfaces. What are its types?
3. What is an ER-diagram? Construct an ER diagram by taking a suitable example.
4. What is relational model? How the data and relationships are represented in tables in relational models?
5. What are different types of normalization? Also explain the difference between BCNF and 3NF briefly.
6. How OLAP is used to extract and view data in warehousing?

SECTION-C

7. Discuss nested relations in object relational databases. Why they are called complex data types?
8. What is Data Mining? Explain Data Mining Techniques. Compare between Data Mining and Data Warehousing.
9. What is an XML Schema? What are the basic rules while writing XML? Explain.