Roll No.

Total No. of Pages: 02

Total No. of Questions: 18

# B.Tech. (IT) (2012 to 2017) (Sem.-5) DATABASE MANAGEMENT SYSTEM

Subject Code: BTIT-503 M.Code: 70596

Time: 3 Hrs. Max. Marks: 60

### **INSTRUCTION TO CANDIDATES:**

- 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**

# **Answer briefly:**

- 1. What is Physical and logical data Independence of DBMS?
- 2. What is SQL Dependency?
- 3. Compare hierarchical model with relational model?
- 4. Explain 2nd and 3rd normal forms?
- 5. What are report generators?
- 6. Give syntax of JDBC?
- 7. Write the use of XML?
- 8. What is XQuery?
- 9. What is the use of NoSQL database?
- 10. What is transaction management in SQL?

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#### **SECTION-B**

- 11. Write a short note on distributed processing and client server architecture.
- 12. Define relational algebra. Explain the various operations of relational algebra.
- 13. What do you mean by Distributed databases? What are the policies used in distributed databases?
- 14. Give the introduction of relational query optimisation.
- 15. Explain the various schemas that can be used for the construction of data warehouse.

# **SECTION-C**

- 16. What are logical data model and physical model? Discuss physical data Modeling Techniques?
- 17. What are nested elements in XML? What are the benefits of XML? Explain.
- 18. Discuss how Online Analytical Processing (OLAP) is used to organize large business databases?

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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