VR14

14CS3501

III/IV B.Tech. DEGREE EXAMINATION, NOVEMBER, 2016

Fifth Semester

COMPUTER SCIENCE AND ENGINEERING

DATABASE MANAGEMENT SYSTEMS

Time: 3hours ***Max. Marks: 70***

Part-A is compulsory

Answer One Question from each Unit of Part-B

PART-A

10 x 1 = 10M

1. a. What is Integrity Constraint?
   b. What is the typical functionality of a Data Warehouse?
   c. What is Distributed Database?
   d. Difference between Weak Entity and Strong Entity.
   e. What is Candidate key?
   f. Define Third Normal Form.
   g. What is Transaction?
   h. Define NOSQL.
   i. What is Graph database?
   j. Write about MongoDB.

PART-B

4 x 15 = 60M

UNIT-I

2. a. Explain the advantages of using DBMS Approach. 7M

   b. What is data model? List and explain different data models. 8M

(or)

3. a. Write about data modeling for Data Warehouses. 7M

   b. Explain the characteristics of Data Warehouses. 8M

UNIT-II

4. a. Write about the different types of attributes . 7M

   b. Draw and explain E-R diagram of an Airline reservation system. 8M

(or)

5. a. What is Constraint? Explain about Relational Model Constraints. 7M

   b. What is join operation in Relational Algebra? Discuss in detail about variants of joins. 8M

UNIT-III

6. a. What is meant by Functional Dependency? Discuss Second Normal Form by illustrating with an example. 7M

   b. Explain about Binary Locks and Shared/Exclusive Locks. 8M

(or)

7. a. Explain about Boyce Codd Normal Form with an example. 7M

   b. Discuss about transaction and system concept in detail. 8M

UNIT-IV

8. a. Discuss about Querying MongoDB in detail. 7M

   b. Describe about HBase Distributed Storage Architecture. 8M

(or)

9. a. Discuss in detail about Redis. 7M

   b. Write about Distributed ACID sytems. 8M

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