Seat No.

MAR-APR-2024 SUMMER EXAMINATION
Bachelor of Engineering
Sub. Name: Advanced Database Systems
Sub. Code: 67543/83858/83993

Day and Date: MAY ,09-05-2024 **Total Marks: 70**
Time: 10:30 AM To 01:00 PM

Instructions: **1. All questions are compulsory**
2. Draw neat labbelet diagrams wherever necessary

Q1) Solve following MCQ. **[14]**

i. Which of the following parallel database architecture is mainly used by distributed database system?

 A. Shared Memory

 B. Shared Disk
 C. Shared Nothing
 D. Hierarchical

ii. The data stored in the database can be queried using. ....

 A. XML
 B. XQuery
 C. Table
 D. Records

iii. _____ is a popular, open-source, sorted ordered column-family store that is modeled on the ideas proposed by Google's Big table.

 A. HBase
 B. Hyper table
 C. Cloud data
 D. None of the above

iv. What kind of database MongoDB is?

 A. Graph Oriented
 B. Document Oriented
 C. Key Value Pair
 D. Column Based

v. Which of the following is the preferred way to recover a database after a transaction in progress terminates abnormally?

    A. Rollback
    B. Roll forward
    C. Switch to duplicate database
    D. Reprocess transactions

vi. ──────── mean programs can be written as if a database is not distributed for its user.
    A. Transparency
    B. Distribution Transparency
    C. Robustness
    D. None of Above

vii. Which of the following applied on warehouse?

    A. write only
    B. read only
    C. both a & b
    D. None of these

Q2) Solve any 2 of the following (7 Marks Each) **[14]**

1. What is parallel database system? Explain data partitioning techniques used in parallel databases. **[7]**

2. How CRUD operation perform in MongoDB. Explain step by step with example. **[7]**

3. Describe MongoDB. Explain following various commands of MongoDB with syntax and example. A. Use B. Insert() C. Find() D. Save() **[7]**

Q3) Solve any 2 of the following (7 Marks Each) **[14]**

1. What is Dynamic SQL? State its advantage and disadvantages. **[7]**

2. Explain parallel architectrues. **[7]**

3. What is CouchDB? Give difference between MongoDB and CouchDB. **[7]**

Q4) Solve any 2 of the following (7 Marks Each) **[14]**

1. How to maintain security for Database Administration? **[7]**

2. Enlist and explain Different Mathematical models for decision making **[7]**

3. How the Data Warehouses is useful for Data Analysis ? **[7]**

Q5) Solve any 2 of the following (7 Marks Each) **[14]**

1. Describe DBA activities with suitable diagram. **[7]**

2. Explain Online Analytical Processing ? **[7]**

3. Explain in details data mining process. **[7]**

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