QP Code: 9403QP

Seat No.	

Total No. of Pages: 2

Winter Examination Oct/Nov 2023

Subject Name: B.Tech. CBCS_67543_83858_83993 - Advanced Database Systems_05.12.2023_10.30 AM To 01.00 PM

Subject Code: 83858

Day and Date: - Tuesday, 05-12-2023 **Total Marks: 70**
Time: - 10:30 am to 01:00 pm

Instructions.:
1) All questions are compulsory
2) Figures to the right indicate full marks

Q.1. **Choose the correct option. (2 Marks each)** **[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) _____ is a popular, open-source, sorted ordered column-family store that is modeled on the ideas proposed by Google's Bigtable.
A) HBase
B) Hypertable
C) Cloudata
D) None of the above

iii)
The data stored in the database can be queried using.....
A. XML
B.XQuery
C.Table
D.Records

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) Rollforward
C) Switch to duplicate database
D) Reprocess transactions

vi) If we parallelize the execution of large number of small transactions in a database system, then which of the following would be improved?
A) Response time
B) Rotational latency
C) Throughput
D) All of the above

vii) Which of the following applied on warehouse?
A) write only
B) read only
C) both a & b
D) none of these

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

a) What is parallel database system? Explain data partitioning techniques used in parallel databases.

b) How CRUD operation perform in MongoDB. Explain step by step with example.

c) Describe MongoDB. Explain following various commands of MongoDB with syntax and example. A. Use B. Insert() C. Find() D. Save()

Q.3. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) What is Dynamic SQL? State its advantage and disadvantages.

b) Explain parallel architectrues.

c) What is CouchDB? Give difference between MongoDB and CouchDB.

Q.4. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) How to maintain security for Database Administration?

b) How the Data Warehouses is useful for Data Analysis ?

c) Enlist and explain Different Mathematical models for decision making

Q.5. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) Describe DBA activities with suitable diagram.

b) Explain Online Analytical Processing ?

c) Explain in details data mining process.

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