22521

12223

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

Marks

1. Attempt any FIVE of the following : **10**

(a) State the use of concurrency control.

(b) Define Big Data.

(c) Give any four characteristics of XML.

(d) Define data mart & meta data.

(e) Enlist any four types of join.

(f) Enlist Data Mining Techniques.

(g) Write any four benefits of NOSQL.

2. Attempt any THREE of the following : **12**

(a) Explain nested query with suitable example.

(b) Differentiate between SQL & NOSQL database system.

(c) Explain distributed database in detail.

(d) Explain Aggregation in MapReduce.

3. Attempt any THREE of the following : **12**

(a) With neat diagram explain Data warehousing Lifecycle.

(b) Explain Multimedia Databases.

(c) Explain with example any four operation with MongoDB.

(d) Explain features of R-programming along with its R-programming use in various applications.

4. Attempt any THREE of the following : **12**

(a) Explain Mobile database with its need.

(b) Explain Three-Tier client server model.

(c) Describe Business Intelligence Framework & Features.

(d) Describe oracle cloud & its features.

5. Attempt any TWO of the following : **12**

(a) Explain Flower expression and nested queries in Xquery.

(b) Write query to execute find( ) function on collection : Inventory

(i) To display all documents where status equals either “A” or “G”.

(ii) To display all documents in collection.

(iii) To display all documents where quality is less than 30 and greater than 10.

(c) Explain inheritance for PL/SQL objects with examples.

6. Attempt any TWO of the following : **12**

(a) Define Lock. Explain two phase locking protocol with neat example.

(b) Explain object & object identity. Write SQL query for the given table :

Class : Employee
Name Salary Post Gender
Store Print Update

(c) Consider following input data for your MapReduce Program :

Welcome to College Class

College is best

College is bad

Draw MapReduce Architecture & explain its phases.
