

Roll No

MCSE - 203**M.E./M.Tech., II Semester**

Examination, June 2016

Advance Concept in Data Bases*Time : Three Hours**Maximum Marks : 70*

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain three levels of abstraction in data modeling and their relationship. 5
b) Describe the role of referential integrity in ER model, in data model and in SQL. 5
c) What are two major variants of relational calculus. Explain their usage. 4
2. a) How is the objective of Query optimization is achieved. Explain challenges to achieve it. 7
b) Write the procedure to calculate cost estimation during query optimization. Explain with an example. 7
3. a) How is the multimedia database is different from normal database? Explain the main features of multimedia database. 7
b) Write and explain necessary steps required for distributed query processing. 7

4. a) Write the characteristics of object oriented DBMS. What are various open source object relational mapping tools are available. Explain anyone OPM tool in brief. 7
b) What are the issues of concurrency control and recovery control in distributed database? 7
5. a) Why do we need distributed database? Explose security issues of such system. http://www.rgpvonline.com 7
b) Explain star and snowflake schemas with example. 7
6. a) What do you mean by term 'Knowledge discovery'? How it is related to database house? 7
b) Explain the basic statistical analysis tools used in data mining. 7
7. a) What are main features of spatial database. 5
b) Write the algorithmic steps for query simplification. 5
c) What are common techniques for evaluating relational operators. 4
8. Write short notes on:
 - a) Domain tuples 4
 - b) Data mining techniques 4
 - c) Object relational mapping 3
 - d) Design issues of database house 3
