



[4658] – 601

Seat No.	
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T.E. (Information Technology) (Semester – I) Examination, 2014
DATABASE MANAGEMENT SYSTEMS
(2012 Pattern)

Time : 3 Hours.

Max. Marks : 70

1. a) Explain good database design properties. With suitable example explain the consequences of bad designing. 5

- b) Explain with suitable example SQL aggregate functions. 5

OR

2. a) Define serializable schedule. Explain two forms of serializability. 5

- b) What is a relation ? What are the properties of relation ? Explain with example. 5

3. a) Explain the following extended entity relationship features of E-R model. 5

- i) specialization ii) generalization
iii) aggregation iv) attribute inheritance

- b) Explain rigorous two phase locking protocol. 5

OR

4. a) What is a deadlock ? Explain deadlock recovery techniques. 4

- b) Write the syntax for following SQL commands : 6

- i) create table ii) alter table iii) drop table
iv) insert v) delete vi) update

5. a) Explain characteristics and advantages of distributed systems. 8

- b) Detail the procedure for connectivity of MongoDB with Java. 8

OR

6. a) Explain the need of data fragmentation and types of fragmentation. 8

- b) Explain the speed-up and scale up issues with respect to parallelism. 8

7. a) Draw and explain basic building blocks of Hadoop. 8

- b) Describe XML data model. List the advantages of XML. 8

OR

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8. a) Explain various components of Hadoop. 8
b) Write a short note on : 8
 i) XQuery ii) JSON
9. a) Draw and explain main components of data warehouse and its characteristics. 9
b) What are the characteristics of NoSQL cloud databases ? 9

OR

10. a) What are the requirements of mobile databases ? List existing mobile dbs. 9
b) What is a decision support system ? Explain storage and data retrieval issues related to it. 9
