

II Semester B.C.A. Examination, June 2009

(Y2K8 Scheme)(2008-09 & Onwards)

COMPUTER SCIENCE

BCA 205 : Database Management System

Time : 3 Hours

Max. Marks : 60

Instruction : Answer all Sections.

SECTION - A

Answer any ten questions. Each question carry one mark.

(10×1=10)

1. Define entity and entity type.

2. What is candidate key ?

3. Define data models.

4. Explain data independence.

5. Explain concurrency control.

6. What is data abstraction ?

7. What is schemas ?

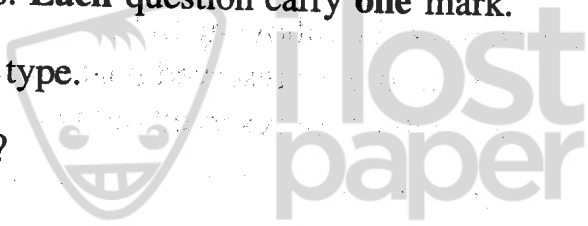
8. What is domain ?

9. What is redundant storage ?

10. What is DML ?

11. What is normalization ?

12. What is a transaction?



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SECTION – B

Answer **any five** questions. **Each** question carries **3** marks.

1. Explain the different rules of database administrators application program
2. Describe the three schema architecture with the help of diagram.
3. Distinguish between conceptual design, logic design and physical design
4. Explain the following mapping cardinality
 - i) one to one
 - ii) one to many
5. Sailors (Sid, Sname, rating, age)
Boats (bid, bname, color)
Reserves (sid, bid, day)
Consider the above tables, write the following SQL queries
 - i) Find the names of sailors who have reserved boat no. 103
 - ii) Find the names of sailors who have reserved red boat.
6. Define INF with the help of example.
7. Define concurrency control and locking scheme.

SECTION – C

Answer **any five** questions. **Each** question carries **seven** marks.

1. Draw an E-R diagram for Bank database.
2. What is an attribute ? Explain the types of attributes with examples.
3. Discuss relational constraints.
4. Define 2NF and BCNF with the help of example.
5. Explain following terms :
 - i) Seek Time
 - ii) Rotational delay
 - iii) Transfer time.
6. What do you mean by anomalies in database ? Define functional dependencies
7. Discuss transactions and schedules.
8. What does the lock manager do ? Describe the lock table and transaction