RELATIONAL DATABASE MANAGEMENT
SYSTEMS WITH ORACLE

Paper—BCA–225
Semester—IV

Time Allowed : 3 Hours] [Maximum Marks : 75

Note : The candidates are required to attempt two
questions each from Sections A and B carrying
15 marks each and the entire Section C
consisting of 6 short answer type questions
carrying 2½ marks each.

SECTION—A

1. (a) What are the unique features of RDBMS ?
   Describe. 7½
   (b) Draw a comparison among various file
       organization techniques known to you. 7½
2. (a) What kinds of Operations are generally performed on Files? Explain with examples. 7½

(b) What do you mean by Primary key and Foreign key in RDBMS? What is their significance? Describe with a relevant example. 7½

3. (a) What is a Transaction? How does RDBMS ensure that the transactions are executed properly? Describe. 7½

(b) What is Serializability? How do you test serializability of Schedules? Discuss with an example. 7½

4. (a) What do you mean by Deadlock? What are the steps for deadlock recovery? Brief out. 7½

(b) What are various locking techniques for concurrency control? Briefly compare them. 7½
SECTION—B

5. (a) What do you mean by Transaction failure? What main causes for failures? Describe. 7½

(b) What is meant by deferred Database modification? Explain its process with an example. 7½

6. (a) Explain the Client-Server architecture of Oracle. 7½

(b) What are various DCL statements? Describe their usage. 7½

7. (a) What is Pattern matching? How do you write SQL statements for pattern matching? Elaborate with examples. 7½

(b) What are before type Triggers? What are the applications where you can apply before type Triggers? Discuss. 7½

8. (a) Oracle offers several date related functions. Discuss some of them with proper syntax. 7½

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(b) What is a Trigger? Which statements are used for creating and dropping triggers? Discuss with proper syntax.

SECTION—C

9. Attempt all the following: $6 \times 2\frac{1}{2} = 15$

(i) What are advantages of RDBMS?

(ii) Differentiate between Locking and Time Stamping protocols.

(iii) Mention the properties of a Transaction.

(iv) What are Database checkpoints? Why are they used?

(v) How do you use `order by` in a SQL Select statement?

(vi) Differentiate between Outer join and Inner Join.