

PC-1504/M

L-18/2051

RELATIONAL DATABASE MANAGEMENT SYSTEM
AND ORACLE-124
(Semester-II)

Time : Three Hours]

[Maximum Marks : 70

Note : Attempt *two* questions each from Section A and B.
Section C is compulsory.

SECTION-A (2×10.5=21)

- I. (a) Define DBMS. Give characteristics and classification.
(b) Write a note on DBMS architecture.

- II. (a) Discuss database conceptual modelling by E-R model.
(b) Describe relational data model.

- III. (a) What is normalization? Explain 1NF, 2NF, 3NF.
(b) Discuss the concept of database design and normalization.

- IV. (a) Differentiate between relational algebra and relational calculus.
- (b) Explain the concept and usage different types of keys.

SECTION-B **(2×10.5=21)**

- V. (a) Differentiate between spatial and temporal databases.
- (b) Give overview of data objects. Discuss creation and manipulation of data objects.
- VI. (a) Explain the concept and applications of data mining and data warehousing.
- (b) Discuss concept, structure and application of Oracle.
- VII. Discuss the concept of database recovery. Elaborate database recovery techniques.
- VIII. (a) Define database concurrency. Give concurrency control methods.
- (b) Discuss the concept, issues and applications of database protection.

SECTION-C **(14×2=28)**

(Compulsory Question)

- IX. (a) Define RDBMS.
- (b) What is meant by SQL?

- (c) What are tables and fields.
 - (d) Define Super Keys and Candidate Keys.
 - (e) Give problems associated with bad database design.
 - (f) Differentiate between physical and logical data independence.
 - (g) Give advantages of using DBMS approach.
 - (h) Discuss transaction processing systems.
 - (i) What are the problems of concurrent databases.
 - (j) Discuss multimedia databases.
 - (k) What do you mean by Shadow paging.
 - (l) Differentiate between serializability and recoverability.
 - (m) Discuss full functional dependency.
 - (n) Define structure of Oracle.
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