R17

Time: 3hrs   **Max.Marks:75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a)	Discuss about different types of database users.	[5]
b)	When can we use group by clause? Explain with an example.	[5]
c)	What is functional dependency? Explain with an example.	[5]
d)	What is a transaction? What are the properties of transaction?	[5]
e)	What are sparse and dense indexes?	[5]

PART - B

5 × 10 Marks =50

2.a)	What is the role of storage manager? Explain.	
b)	Explain about database system architecture.	[5+5]

OR

3.	Discuss about various data models.	[10]

4.	Discuss about integrity constraints over relations.	[10]

OR

5.a)	Discuss about destroying and altering tables and views.	
b)	Explain in detail about nested queries.	[5+5]

6.	Discuss about different types of relational calculus in detail.	[10]

OR

7.	Explain 3 NF and BCNF with examples.	[10]

8.	Explain timestamp based protocols.	[10]

OR

9.	Explain ARIES recovery system.	[10]

10.a)	Explain ISAM in detail.	
b)	Explain about cluster index.	[5+5]

OR

11.	Explain about different file organizations.	[10]

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