

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Illustrate the procedure for converting SQL queries into relational Algebra with examples.	13	K2	CO1
	(OR)			
b)	Explain the need of query optimization in query processing. Illustrate an example.	13	K2	CO1
12. a)	Differentiate between static hashing and dynamic hashing.	13	K4	CO2
	(OR)			
b) i.	Explain the key features of Multimedia Databases.	6	K2	CO2
ii.	How deductive databases are more helpful than active databases? Give an example.	7		
13. a) i.	Explain the necessary characteristics a system must satisfy to be considered as an object-oriented database management system?	7	K2	CO3
ii.	Outline the procedures for design of object model.	6		
	(OR)			
b)	Illustrate the concept of Encapsulation of Operations and Methods with relevant examples.	13	K3	CO3
14. a)	Analyse the various Access Control Mechanisms for multi level security in database applications.	13	K4	CO4
	(OR)			
b)	Examine the various challenges for maintaining the database security with relevant examples.	13	K4	CO4
15. a)	Explain in detail about query processing in MongoDB with an example.	13	K4	CO5
	(OR)			
b)	Analyse the comparison of NoSQL and relational databases with illustrative examples.	13	K4	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a) i.	Explain Replication and scaling feature of MongoDB.	7	K3	CO5
ii.	Organize the basic CRUD operations with example in MongoDB.	8		
	(OR)			
b)	Build the OQL queries that apply to Company database with detailed steps.	15	K3	CO3