

[Time:2.30 Hrs]

[Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
 2. Figures to the right indicate full marks.

Q.1	Attempt any four of the following:	20
	A Write advantages of DBMS over file system.	
	B Explain the different levels of Abstraction	
	C What are mapping cardinalities? Explain using suitable examples	
	D Draw and explain the architecture of the DBMS.	
	E Explain generalization and specialization with an example.	
	F List and explain different types of attributes in ER model.	
Q.2	Attempt any four of the following:	20
	A With suitable example, explain the select and project operation of relational algebra.	
	B Define Normalization. Explain 3NF with an example.	
	C Explain the following commands: a. CREATE b. ALTER c. DROP	
	D Write a short note on Boyce-Codd Normal Form (BCNF).	
	E Write a short note on Lossless Join Decomposition.	
	F State the six inference rules that apply to Functional Dependencies	
Q.3	Attempt any four of the following:	20
	A Explain different outer join operations with example.	
	B Explain any four Math functions with example	
	C Explain the Discretionary Access Control Based on Granting and Revoking Privileges.	
	D Describe concept of subqueries with example	
	E Define VIEW. Explain using appropriate example.	
	F Write short note on String function	
Q.4	Attempt any three of the following:	15
	A Explain the different threats to databases	
	B What is nested sub query? Explain ANY/ALL clause with example.	
	C Define Joins. Explain the Outer join with an example	
	D Write a note on Aggregation and Generalization	
	E Explain SET operators in relational algebra with example.	
	F Explain the reasons of Failure in a Database.	

*****END*****