KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES
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Programme	: B.Tech	**Academic Year**: 2025-26
Year / Semester	**:** II / II	
Branch / Section	: IT/CSE	
Course Code	: 23CD4T02	
Subject	: Database Management System	

QUESTION BANK FOR MID-I

UNIT-1
Short answer questions

Q. No.	Question	M	CO	LL
1	Define DBMS. List out any two advantages of a Database System	2	1	LL1
2	Define File System. List out any two disadvantages of File System	2	1	LL1
3	List out various database applications.	2	1	LL1
4	State different types of Database Users	2	1	LL1
5	State the different responsibilities of Database Administrator (DBA).	2	1	LL1
6	Define Data Model. List out different Data Models.	2	1	LL1
7	Define Schema and list its types	2	1	LL1
8	Define Instance and explain it with an example.	2	1	LL1
9	Define Data Independence.	2	1	LL1
10	Define Data Dictionary.	2	1	LL1

Essay questions

Q. No.		Question	M	CO	LL
1	a	Explain the Characteristics of DBMS?	6	1	LL2
	b	Explain the drawbacks of File Processing System	6	1	LL2
2	a	Define DBMS. Explain the advantages of DBMS	6	1	LL2
	b	Discuss the different types of database users.	6	1	LL2
3	a	Explain various Applications of DBMS	6	1	LL3
	b	Explain the Hierarchical Data Model and Network Data Model with a suitable example	6	1	LL2
4	a	Describe ER-Model with a suitable example	6	1	LL2
	b	Explain Relational Data Model with a suitable example	6	1	LL2
5	a	Explain the three-tier schema architecture of DBMS with a neat diagram.	6	1	LL2
	b	Briefly explain the three-tier schema architecture for the data independence	6	1	LL2
6	a	Compare the differences between a traditional file system and DBMS	6	1	LL2
	b	Explain database system structure.	6	1	LL2

UNIT-2
Short answer questions

Q. No.	Question	M	CO	LL
1	Define Relation in DBMS.	2	2	LL1
2	Define terms domain, attributes, tuple in a relation.	2	2	LL1
3	State the importance of NULL values in a database.	2	2	LL1
4	State the importance of constraints in Relational Model	2	2	LL1
5	Define Primary Key Constraint.	2	2	LL1
6	Define Foreign Key Constraint.	2	2	LL1
7	List the common SQL data types.	2	2	LL1
8	State the purpose of the WHERE clause in SQL.	2	2	LL1
9	Compare DROP, TRUNCATE, and DELETE commands in SQL.	2	2	LL2
10	Difference between selection and projection.	2	2	LL2

Essay questions

Q. No.		Question	M	CO	LL
1	a	Elaborate the relational model of database system in detail with an example	6	2	LL2
	b	State and explain about different Key Constraints with suitable examples	6	2	LL3
2	a	Discuss about Domain and Integrity Constraints in relational model	6	2	LL2
	b	Explain different SQL data types with suitable examples.	6	2	LL2
3	a	Discuss DDL Commands with examples in SQL.	6	2	LL2
	b	State and explain various DML Commands with syntax and examples	6	2	LL2
4	a	Explain basic SQL querying using SELECT and PROJECT operations with the help of WHERE clause.	6	2	LL2
	b	Explain various Arithmetic and Logical operators in SQL with suitable examples.	6	2	LL2
5	a	Explain various Date & Time functions and Numeric functions in SQL with suitable examples.	6	2	LL2
	b	Explain various String Functions in SQL with suitable examples.	6	2	LL2
6	a	Consider the following database schema: STUDENT (rollno INT, name VARCHAR(50), marks INT, deptno INT) DEPT (deptno INT, dname VARCHAR(50)) Answer the following using SQL: a) Add a PRIMARY KEY constraint to the deptno column of the DEPT table. b) Add a PRIMARY KEY constraint to the rollno column of the STUDENT table. c) Add a FOREIGN KEY constraint on the deptno column of the STUDENT table referencing the DEPT table. d) Add a new column email of type VARCHAR(50) to the STUDENT table. e) Rename the column name to sname in the STUDENT table. f) Modify the size of the sname column to VARCHAR(100) in the STUDENT table. g) Drop the column marks from the STUDENT table.	6	2	LL2

	b	Consider the following schema: DEPT (deptno INT, dname VARCHAR, loc VARCHAR) EMP (empno INT, ename VARCHAR, job VARCHAR, sal NUMBER, deptno INT) Write SQL queries for the following: i) Insert a new department with department number 50, name as 'HR', and location as 'Hyderabad'. ii) Insert a new employee with employee number 9001, name 'Ravi', job 'Clerk', salary 1500, and department number 10. iii) Update the salary of employee number 7844 to 2000. iv) Delete all employees who belong to department number 30. v) List all employee details who belong to department number 10 and whose job is 'Clerk'. vi) Display employee number, employee name, department name, and location of all employees.	6	2	LL2

UNIT -3
Short answer questions

Q. No.	Question	M	CO	LL
1	Define Strong Entity and Weak Entity	2	3	LL1
2	Define Multivalued Attribute.	2	3	LL1
3	Define Relationship. List different types of relationships.	2	3	LL1
4	Define Total Participation Constraint and Partial Participation Constraint.	2	3	LL1
5	Define IS-A Relationship in ER Model.	2	3	LL1

Essay questions

Q. No.	Question	M	CO	LL
1	Discuss the basic concepts of the ER-Model with suitable examples.	6	3	LL2
2	Discuss about Degrees of Relationship and Constraints with suitable examples.	6	3	LL3
3	Demonstrate the ER diagram for a Library Information System.	6	3	LL3
4	Demonstrate the ER diagram for a Bus Reservation System.	6	3	LL3
5	Demonstrate the ER-Diagram for a Banking System.	6	3	LL3
6	Demonstrate the following for entity-relationship diagrams Specialization, Generalization	6	3	LL3

Course Coordinator   **Module Coordinator**   **Programme Coordinator**

Coordinator IQAC