

D.K.M COLLEGE FOR WOMEN(AUTONOMOUS),VELLORE-1.

DATABASE MANAGEMENT SYSTEM

QUESTION BANK

UNIT –I

SECTION-A

2 MARKS

1. What is meant by DBMs?
2. Who is a DBA?
3. What is a data model?List its types.
4. Define DML.
5. List any 2 application of DBMS.
6. What are the advantages of DBMS.
7. Give the levels of data abstraction.
8. Define Instance and Schema.
9. Define the terms of Database Schemas.
10. What is Conceptual Schema?
11. List the four mapping cardinalities.
12. What is data dictionary?
13. What is the purpose of Storage manager?
14. What is E-R Model?
15. What is relationship?

SECTION-B

5 MARKS

1. Explain the hierarchical model of a database with an example.
2. Explain the 3 levels of data abstraction.

3. What are primary and foreign keys?
4. Discuss the concept of data redundancy, inconsistency and security?
5. What is meant by data model explain briefly.
6. Explain about mapping cardinalities in detail.
7. What is meant by DBA explain briefly.
8. What is an ER diagram? Construct an ER diagram for a student details.
9. Discuss the functions of data independence in detail.
10. Explain the concept of atomicity and concurrent access of database.
11. What are the advantages of DBMS?
12. Explain the query processor with an example.

SECTION-C 10 MARKS

1. Explain overall database system architecture.
2. Discuss about the mapping constraints.
3. Explain the E-R Diagram with suitable example.
4. Explain in detail about any two data models?
5. Write short notes on i.DML ii.DB users?
6. Explain about the disadvantages of file processing system.
7. Draw an ER Diagram for banking enterprise?

UNIT II SECTION-A 2 MARKS

1. What is domain relational calculus?
2. Define attributes.
3. What is a Query language?
4. What is relation instance?

5. Explain about operations.
6. Define Relational algebra.
7. Explain about embedded SQL.
8. Write down aggregate functions.
9. Write about tuple calculus.
10. What is meant by SQL?
11. Write down the notations for alter,modify commands in SQL.
12. What is meant by RDBMS.
13. List out the fundamental operations of relational algebra.

SECTION-B 5 MARKS

1. Explain tuple relational calculus.
2. Write a short notes on aggregate functions in SQL.
3. Explain the Rename operation of fundamental operations.
4. Write the DML commands for update,modify,alter a field.
5. Explain about domain relational calculus.
6. Explain about the selection process with an example.
7. Write about different components of SQL language briefly.
8. Discuss about the embedded SQL.
9. What are pitfalls in RDBMS.
10. Explain about single table queries with an example.
11. Describe the structure of relational model in detail.
12. Write an query for create,insert,delete &update a field in table.

SECTION-C 10 MARKS

1. Explain any five fundamental relation algebra operations.
2. Discuss in detail about Tuple Relational Calculus.
3. Write about Domain Relational Calculus.
4. Explain about unary operations in relational algebra.
5. Explain about the binary operations in relational algebra.
6. Explain weak entity set in tabular format.
7. Explain about Cartesian operation with banking enterprise.

UNIT –III SECTION-A 2 MARKS

1. Explain about views in SQL.
2. Write the structure of SQL query.
3. What is Rollback?
4. Write about Joins in SQL.
5. Explain about Joins types.
6. Write about joins conditions.
7. Write a query to create a view command.
8. Discuss about where clause.
9. Write about outer join in relation.
10. Write about inner join relation.

SECTION-B 5 MARKS

1. Discuss different set operations in SQL.
2. Explain about union, set intersection with an example.

3. Write short notes on aggregate function in SQL.
4. Write short notes on modification of databases.
5. Explain about nested sub queries.
6. Discuss about View commands in detail.
7. Explain about joins and its types.
8. Explain about basic structure of Embedded SQL.

SECTION-C 10 MARKS

1. Discuss how views are used in SQL.
2. Write short notes on i. Joined relation ii. Embedded SQL.
3. Explain in detail about Nested sub queries.
4. Write about aggregate functions in detail with example.
5. Write about basic structure of SQL.

UNIT IV SECTION-A 2 MARKS

1. Define Normalization.
2. What is first normal form?
3. How to define the third normal form.
4. Define Renormalization.
5. Define BCNF.
6. Explain decomposition integrity.
7. Write down the properties of decomposition.
8. Explain the concept of lossless-join decomposition.
9. Write about 2nf.

10. Define functional dependencies.
11. Explain about multivalued dependencies.
12. Write about 4nf.
13. Write about trivial functional dependencies.

SECTION-B 5 MARKS

1. Explain normal forms with examples.
2. Compare between BCNF and 3NF.
3. Explain the functional dependencies.
4. Explain about multivalued dependencies.
5. Write about Single valued and multivalued dependencies.
6. Write about 1NF and 2NF in detail.
7. Write a short notes on third normal form.
8. Explain the need of normalizing tables.
9. Describe the concept of lossless join dependency.
10. Explain about the fourth normal form.

SECTION-C 10 MARKS

1. Write about normal form in relational database design.
2. Illustrate the second normal form with example.
3. Explain in detail about the 4NF of normalization.
4. Explain BCNF in detail.
5. Write about multivalued dependencies with fourth normal form.
6. Explain Normalization & Denormalization in detail.
7. Discuss about functional dependencies in detail.

8. Explain about trivial and non trivial functional dependencies.
9. Compare 3NF & BCNF in detail.

UNIT -V

SECTION-A

2 MARKS

1. What is meant by Exception Handling.
2. Write about date functions.
3. Write about alerts.
4. List any five built in functions in oracle.
5. Write the types of control structures.
6. Write about Triggers.
7. When no-data-found is a type of Exception true or false.
8. What is meant by PL\SQL.
9. Write down the data types of PL\SQL.
10. Discuss about cursors.

SECTION-B

5 MARKS

1. Explain in detail about PL\SQL packages.
2. What are data blocks explain its uses.
3. Write about data types in PL\SQL in detail.
4. Discuss about character functions in PL\SQL.
5. Write about the looping structure of PL\SQL.
6. With an example explain different control statements in PL\SQL.
7. Explain the Exception Handling in PL\SQL.
8. Write short notes on Triggers.

9. Explain about Menus in PL\SQL.
10. Mention the differences between procedures and functions.

SECTION-C 10 MARKS

1. Describe in detail the Exception Handling in PL\SQL.
2. Explain about cursor in PL\SQL.
3. Explain in detail about DDL & DML in PL\SQL commands.
4. Write about functions and procedures in detail.
5. Explain about Triggers in detail.
6. Write notes on radio, check,group menu buttons in detail.
7. Explain about Packages in detail.
8. Describe about the data types of PL\SQL.
9. Write about the branching statements in PL\SQL.
10. Explain detail about the control structures of PL\SQL..

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MODEL QUESTION EXAMINATION

DATABASE MANAGEMENT SYSTEM

CLASS:III BSC(CS)/BCA

MARKS:75

PART A

Answer all the questions:

(10*2=20)

1. What is meant by DBMs?
2. Who is a DBA?
3. Define attributes.
4. What is a Query language?
5. Discuss about where clause
6. What is Rollback?
7. What is first normal form?
8. Define ReNormalization
9. Write about date functions
10. Write about alerts.

PART B

Answer any five questions:

(5*5=25)

11. Explain the hierarchical model of a database with an example.
12. Explain the 3 levels of data abstraction.
13. Write a short notes on aggregate functions in SQL.

14. Explain the Rename operation of fundamental operations.
15. Explain about nested sub queries.
16. Explain about multivalued dependencies.
17. Write about Single valued and multivalued dependencies.
18. What are data blocks explain its uses.

PART C

Answer the following questions:

(10*3=30)

19.a) Explain overall database system architecture.

(or)

b) Explain the E-R Diagram with suitable example.

20.a) Discuss in detail about Tuple Relational Calculus.

(or)

b) Write short notes on i. Joined relation ii. Embedded SQL.

21.a) Explain BCNF in detail.

(or)

b) Write about functions and procedures in detail.
