**BON SECOURS ARTS & SCIENCE COLLEGE FOR WOMEN**

**MANNARGUDI**

**Department of Computer Science**

**Question Bank**

**SEMESTER-IV**

**Database System**

**UNIT-I**

**2 Marks:**

1. Define DBMS
2. List out the purpose of database systems
3. List out the applications of database systems
4. What are the levels of abstraction
5. What is instance?
6. What is schema?
7. What is DDL?
8. What is DML?
9. What is relational database?
10. What is database design?
11. What is XML?
12. What is transaction management?
13. What are the types of database user?
14. Define database administrator

**5 Marks:**

1. Describe views of data in detail.
2. Explain purpose of data.
3. Describe relational database systems.
4. Draw and explain the architecture of database.
5. Explain the history of database systems.
6. Explain about DML.
7. Explain about the DDL.
8. Explain about the DBA.
9. Explain about the advantage and disadvantage of the data base.

**10 Marks:**

1. Explain in detail about database system applications.
2. Describe data storage and query transaction management.
3. Explain in detail about data models.
4. Explain about the Architecture of the Database System.

**UNIT-II**

**2 Marks:**

1. Define levels of abstraction
2. What is relational database
3. What is the structure of relational database
4. What is attribute
5. What is relational instance
6. What is relational schema
7. What is key?
8. What are the types of keys?
9. What is foreign key?
10. What is query language?
11. What is relational algebra?
12. What is select operation and give example?
13. What is projection operation and give example?
14. What is union operation and give example?
15. What is set difference operation?
16. What is natural join operation and give example?
17. What is assignment operation?
18. What is aggregate function?
19. What is outer join function?

**5 Marks:**

1. Describe in detail about database languages
2. Describe about database design
3. Explain in detail about fundamental relational algebra operations
4. Explain in detail about modification of database

**10 Marks:**

1. Explain in detail about extended relational algebra operations
2. Explain in detail about additional relational algebra operations
3. Describe in brief about query languages

**UNIT-III**

**2 Marks:**

1. Define SQL
2. What is the basic structure of SQL?
3. What are the domain types in SQL?
4. Write syntax for creating table in SQL
5. Write syntax for view and delete query
6. What is tuple variable?
7. What is nested sub query?
8. What is a null value?
9. What is an integrity constraint?
10. What is set operations?
11. Define aggregate functions?
12. Write a syntax for nested sub query
13. What is a derived relation?
14. Write a syntax for joined relations
15. What is embedded SQL

**5 Marks:**

1. Explain in detail about modification of database
2. Explain aggregate function and operation
3. Describe in detail about set operations
4. Explain in detail about nested sub query

**10 Marks:**

1. Explain in detail about SQL sub query
2. Explain the following functions a) complex query b) nested subquery c) aggregate functions.

**UNIT-IV**

**2 Marks:**

1. What is tuple relational calculus?
2. What is domain relational calculus?
3. What is condition box?
4. What is ER model?
5. What is weak entity set?
6. What is strong entity set?
7. What is a constraint?
8. What are the design issues of ER model?
9. What is database design?
10. What is UML?
11. What is modeling?
12. What is entity set?
13. What is mapping cardinality?
14. Define database design

**5 Marks:**

1. Explain tuple relational calculus
2. Explain domain relational calculus
3. Explain database design in detail
4. Explain entity relationship design issues

**10 Marks:**

1. Briefly explain about ER model with example
2. State the overview of relational languages
3. Explain the details of database design for banking database

**UNIT-V**

**2 Marks:**

1. What is first normal form?
2. What are the Features of Good Relational Designs?
3. What is relational database design?
4. What is a functional dependency?
5. What is the use of functional dependencies?
6. What are the goals of normalization?
7. What are multivalve dependencies?
8. What is design process?

**5 Marks:**

1. Write the algorithm for functional dependencies
2. Explain first normal forms
3. Explain functional dependency theory
4. Describe Decomposition Using Multivalue Dependencies

**10 Marks:**

1. Explain First Normal Forms.
2. Explain the types of normalization.
3. Explain Decomposition Using Functional Dependencies.