Aryan College

RDBMS(Relational Database Management System)

Unit I:

1. What is RDBMS? [2017]
2. What is Primary Key? [2017]
3. Describe Foreign Key. [2017]
4. What is attribute? [2017]
5. Explain self reference constraint with suitable example. [2017]
6. What is Normalization? Explain 1NF, 2NF, 3NF and BCNF with examples. [2017]
7. What is the responsibility of DBA? [2015]
8. Differentiate between physical and logical views of data. [2016]
9. Enlist symbols is used in E-R model. [2016]
10. What is tuple variable? [2016]
11. What do you mean by functional dependencies? [2016]
12. What is primary key? [2016]
13. What is transaction? [2016]
14. Differentiate between weak and strong entity set with example. [2016]
15. What is self reference constraint? Explain with the help of an example. [2016]
16. What do you understand by Normalization? Explain the 1NF,2NF,3NF and BCNF with the suitable 1 examples [2016]
17. Define the fundamental operation of relational algebra with suitable examples. [2016]
18. Define 3NF? [2015]
19. Write down two constraints that a key satisfies. [2015]
20. What is the significance of NULL values? [2015]
21. What is candidate key? [2015]
22. What is super key? [2015]
23. Explain types of data independencies in DBMS. [2015]
24. What is Normalization? Explain normalization from 1NF to DKNF with suitable example. [2015]
25. Explain various relational algebraic operators with suitable example. [2015]
26. What are the components of data dictionary? Discuss active and passive data dictionaries [2014]
27. Draw an E-R diagram for a hospital system. Convert this diagram to a suitable relational scheme. [2014]
28. Explain fair dependency. [2014]
29. What do you mean by objects of database? [2014]
30. Explain different constrains used in database. [2014]
31. What is Normalization and its utility in database? Explain functional and fully functional dependency with suitable example. [2014]
32. What do you mean by Relational Databases? [2013]
33. What is data integrity? [2013]
34. What is Normalization? Explain it up to BCNF with a suitable example? [2013]

Draw an E-R diagram of COLLEGE management System and show the following: [2013]

35. Explain following:
    a. Generalization
    b. Specialization
    c. Aggregation

Unit II:

1. What is object level modeling? [2017]
2. Explain different types of protocols to handle concurrency control in RDBMS. [2017]
3. What do you know about Transaction Management? Describe data recovery techniques [2017]
4. Explain architecture of database design. [2016]
5. Explain different types of protocols to handle concurrency control in DDBMS. [2016]
6. What is a transaction? [2015]
7. What is conflict serializability? Explain it. [2015]
8. Explain various locking protocols with suitable example. [2015]
9. A) Explain Architecture of distributed database design? [2015]
   B) Write down advantages and disadvantages of distributed database. [2015]
10. Define a serializable schedule. [2014]
11. Define the timestamp band concievency management scheme. [2014]
12. Explain ACID properties of a transaction. [2014]
13. How do you mean by temporal database. [2014]
14. A) what are the various ways in which concurrency control can be implemented in a database.
    B) Explain the various ways in which database recovery and backup can be implemented .

    [2014]
15. How do you implement a distributed database in real time environment?
16. What do you mean by object oriented modeling? Explain in features of objects oriented database with suitable example.
17. Write short note on the following: [2014]
    a)association Rule
    b)Classification
    c)DTD scheme
    d)Select and join
18. Write short notes on multimedia database and locking. [2014]
19. What is Temporal database? [2013]
20. What is data placement? [2013]
21. Write short note on the following: [2013]

-> Distributed database

->Object oriented modeling

22. What is a transaction? What are its various states? [2013]
23. What are various objects of a database system? Explain. [2013]
24. What is concurrency in database? Explain two phase locking with an example? [2013]
25. What is Data Mining? Write the association rule? [2013]

Unit III:

1. What is XML? [2017]
2. What is Data Mining Association Rules? [2017]
3. What is Data warehousing? [2017]
4. What is Query optimization? [2017]
5. Write a algorithm for external sorting [2017]
6. Clarification of Association Rule Minining. [2017]
7. What is DTD schema? [2016]
8. What is temporal database? [2015]
9. What is data mining? [2015]
10. What is DTD? How it is used with XML? [2015]
11. What are the basic components of query processor? discuss . [2014]
12. How can a query can be optimized write down the algorithm for external sorting. [2014]
13. a) Explain the four levels of architecture is the data warehouse environment. [2014]
    b)List out the difference is OLTP and OLAP [2014]
14. Explain a three tier architecture of data ware house. [2014]
15. Illustrate the various schemes for multi dimensional databases. [2014]
16. What are various data recovery techniques? [2013]
17. What is file organization? List the merits and demerits of random file organization? [2013]
18. What is query optimization? how it is performed? [2013]

Unit IV:

1. Explain DML [2017]
2. What do you know about DDL? [2017]
3. What is PL/SQL? [2017]
4. Write the syntax of any 2 string function [2017]
5. Explain Various Data types in PL/SQL. [2017]
6. Difference between stored procedure and function. [2017]
7. Explain Security and integrity of database [2017]

8. What is trigger? Explain with example. [2017]
9. Explain any five aggregate functions with a suitable example. [2017]
10. Differentiate between delete and truncate commands. [2016]
11. Explain “on delete set Null” clause of foreign key constraint. [2016]
12. Write syntax of any two string functions. [2016]
13. Explain any four DCL commands. [2016]
14. What are the various data types of SQL?Explain. [2016]
15. Differentiate between stored procedure and functions. [2016]
16. Explain the concept of updates through views in DDBMS. [2016]
17. What is cursor? Explain the various types of cursors available in oracle with their Attributes. [2016]
18. Explain any five SQL aggregate functions with an example of each. [2016]
19. Write a function to accept a number and return sum of digits of it. [2016]
20. .What do you mean by database security? Discuss the different ways to achieve database security. [2016]
21. Write down 4 aggregate function of SQL [2015]
22. What are DDl,DML,DCL commands? Differentiate them. [2015]
23. What difference between a table and a view? [2015]
24. A) Explain how we can create and execute a function in PL/SQL? [2015]
    B) Write a program to create a function to return factorial of given number using PL/SQL.[2015]
25. A) What is trigger?Explain various types of triggers? [2015]
    B) Write a PL/SQL program to create a trigger and explain it. [2015]
26. What is check point?How is check point information and for recovery in databases. [2014]
27. What is Oracle transaction. [2014]
28. .Explain multivalued dependency with the help of an example how it is related to 4NF [2014]
29. Explain stored function and stored procedures with differences . [2014].
30. What are indexes? [2013]
31. List five DML commands in SQL [2013]
32. What is difference between a WHERE clause and a HAVING clause of SQL select statement? [2013]
33. What is function in SQL ? What are its various types? [2013]
34. What is the functionality of following operator in SQL: [2013]
    a)ANY
    b)EXISTS
35. What is JOIN in sql?Explain? [2013]
36. Explain the following:
    1)Stored procedure
    2)Trigger