

Aryan College

Relational Database Management System

Unit 1

Distribute Database

1. Explain architecture of distributed processing system. List out advantage and disadvantages of distributed System. (2017,2016,2015,2013,2012,2011,2010,2009)
2. What is difference between DBMS and RDBMS? (2017)
3. Explain Relational Database Management System with example. Explain all the component of database management system with suitable diagram. (2017)
4. Give short note on:
 - a. Distributed database management system
 - b. Data warehousing (2017)
5. Explain ACID property in details. (2017)
6. What do you mean by recovery? How many techniques are used in SQL to recover data? (2017)
7. Explain :
 - a. Three tier architecture system
 - b. Serializability (2016)
8. Describe :
 - a. Primary key
 - b. Foreign key
 - c. Unique key
 - d. Candidate key
 - e. Composite key (2016)
9. Define and describe concurrency control in data base system giving suitable example. (2016)
10. What is transaction? Explain in detail the stages and properties of transaction. (2016)
11. Define and describe transaction management. Hence discuss the concept of Serializability and locks.(2015)
12. Present the overview of three tier of client server architecture. What are the advantages of segregating the three tier? (2015, 2012, 2010)
13. Explain the rules that a distributed database should follow. (2014, 2010)
14. Explain the component of distributed database. (2014)
15. Write the advantage of distributed database over centralized database. (2014)
16. Explain the different type of failure that can occur in distributed database. (2014)
17. What are the recovery techniques that are followed to recover? (2014)
18. What is distributed DBMS? Explain why replication of data is useful in distributed DBMS. (2013)
19. Explain how DBMS can be secured. (2013)
20. Explain the need of concurrency control in transaction? Explain time stamp ordering protocol for concurrency control. (2013)
21. Explain :
 - a. Query optimization
 - b. Deadlock detection (2013)
22. Write short note on:
 - a. Data mining and Data warehouseing
 - b. Serializability (2013,2012)
23. Explain the following:
 - a. Serializability
 - b. Recovery technique (2013)
24. Explain the following term:
 - a. Con currency control technique
 - b. Deadlocks (2011, 2010)

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25. Consider a file system such as the one on your favorite OS.
 - a. What are the steps involved in creation and deletion files, and in writing data to a file?
 - b. Explain how the issue of atomicity and durability are relevant to the creation and deletion of files, and to writing data to files? (2009)
26. Explain the difference between the terms serial schedule and serializable schedule? (2009)
27. What is recoverable schedule? Why is recoverability of schedule desire? Are there any circumstances under which it would be desirable to allow non-recoverable schedules? Explain your answer. (2009)
28. When a transaction is rolled back under timestamp ordering, it is assigned a new timestamp. Why can it not simply keep its old timestamp? (2009)
29. Under what condition is it less expensive to avoid deadlock than to allow deadlocks to occur and then to detect them? (2009)

Unit 2

Query Optimization

1. What is query optimization in RDBMS? Define with suitable flow diagram. Explain external sorting in query optimization process. (2016)
2. Write short note on :
 - a. Multimedia Database system
 - b. Data mining (2016)
3. What are the advantages associated with relational database design? Discuss Codd's rules for relational database. (2015)
4. What do you understand by query optimization? Elaborate using an example. (2015)
5. Discuss the concept of temporal database. Hence database performance improvements in temporal database. (2015)
6. What do you understand by data mining? Hence discuss the relevance of business intelligence and knowledge discovery in database. (2015)
7. What is data warehouse? Discuss the architecture of data warehouse with staging area. (2015)
30. Explain the steps in query processing. (2014)
31. What are the different measures of query cost? (2014)
32. Explain the data mining technique? Write the advantages of classification. (2014)
33. Write short note on temporal database. (2014)
34. Describe the algorithm for external sorting. With the help of example. (2013,2011, 2010)
35. Briefly describe the select and join operation on data, with the help of suitable example. (2011)
36. Explain multimedia database with the help of suitable examples. (2011)
37. Explain the following:
 - a. Multimedia Database
 - b. Data Mining
 - c. Data Warehousing (2010)

Unit 4

PL/SQL

1. How many types of SQL statements? Explain all the statements in detail.
2. Explain:
 - a. Joining in SQL
 - b. Deadlock
3. Define Date types. Explain all kinds of data types in SQL.
4. What is Constraints? Give all kinds of constraints with syntax and example.
5. Write short notes on any two of the following: (2015)
 - a. Data Definition Language (DDL)
 - b. Data Manipulation Language (DML)
 - c. PL/SQL functions

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- d. Error handling in PL/SQL
6. What is a View? How can it be created? Explain the types of Views and describe its advantages over tables. (2014)
 7. Explain Aggregate functions with example. (2014)
 8. Explain the types of constraints using suitable example? Give the condition when the constraints are implemented as table level only. (2014)
 9. Explain using example how constraints are defined in Alter table command. (2014)
 10. What are cursors? Explain the attributes of cursor. (2014)
 11. Create a Cursor asking user to enter deptno and designation of the employees and increase the salary of those employees by 20%. Insert the deptno, actual raise and date when the raise was given in emp-raise table. Write a PL/SQL block to carry out the above task. (2014)
 12. Write down the important features of PL/SQL (2014)
 13. Write a PL/SQL code block to calculate the area of a circle varying from 1 to 10. Store the radius and corresponding values of calculated area in a table named "Areas" (2014)
 14. Explain all of the following type with SQL example. (2013)
 - a. DROP Index
 - b. DROP Trigger
 - c. DROP Procedure
 - d. DROP clause
 - e. TRUNCATE Table
 15. Write the SQL command for grant and revoke. Also explain the role of stored procedure in DBMS. (2013)
 16. Explain with SQL example. (2013)
 - a. Cursor
 - b. Package
 - c. Views
 17. Discuss the error handling in PL/SQL (2013)
 18. Write Short not on Package Procedure. (2013)
 19. What are the different control Structures supported in PL/SQL? Explain. (2012)
 20. Explain the error handling in PL/SQL with suitable example. (2012)
 21. Write Short notes on
 - a. SQL stored procedure
 - b. DDL and DML(2012)
 22. Describe the various commands of SQL with suitable example. (2012)
 23. What is SQL? Explain the languages and commands of SQL with suitable examples.
 24. Write any five functions of Oracle and SQL with the help of suitable examples.
 25. Explain ORACLE Transaction with the help of suitable examples.
 26. create the following relations (2007)
Customer (custid, custname)

Order (custid, custname, ordered, orderdate)

Item (cusitd, ordered, itemid, itemname, qty, rate, amt)

Note: Assumption can be handle (made), place suitable referential integrity constraints and other constraints such as not null, unique.

B) Write syntax for insert update and delete query with an example.

27. A) Write an PL/SQL block to illustrate the working of IF-THEN-ELSE. If a number is greater than other number then it swap the two numbers otherwise it doubles them. (2007)

B) Write a PL/SQL code. Insert a new record in table emp after abstaining values from the user. (2007)

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C) Write a PL/SQL block that obtain empno from user if his/her salary less than 900/- then delete that record home table (2007)

28. What is package and how package can be created? Explain it with the help of an example (Package should contain of last function and one procedure. (2007)

29. How do we handle error in PL/SQL blocks?

30. Why do we use procedure and function in PL/SQL? Demonstrate with example.

Unit 5

Trigger

1. Define Trigger. How many types of triggers? explain with syntax and example . Give syntax of following:

- a. Create a trigger
- b. Dropping a trigger
- c. Before Trigger

(2017)

2. Write short notes on any two of the following:

- a. Oracle Transactions.
- b. Database Triggers
- c. Declarative integrity constraints
- d. BEFORE vs. AFTER Triggers.

3. Write down the utility of database triggers? How triggers are different from procedure min ORACLE? Explain the types of triggers. (2014)

4. Write syntax for creating a trigger. (2014)

5. Write short note on (2013)

- a. BEFORE vs. AFTER Trigger Combination
- b. Triggers vs. Declarative Integrity Constraint

6. Explain the following: (2012)

- c. Database trigger
- d. Statement trigger
- e. Before trigger

7. What are Database Triggers? Explain the use and type of database triggers.(2011)

8. A) What is the trigger? Write the types of Trigger and give examples of BEFORE and AFTER trigger.(2007)

B) Write a trigger that will execute when the duplicate value is entered in emp table and dietary on ever message "Duplicate value is not allowed" (2007)