**Software Testing Assignment Module- 4**

**1- What is RDBMS**

**a.** RDBMS (**Relational Database Management System**) is a type of database management system that stores data in tables with rows and columns, and allows relationships between tables using keys (primary and foreign keys). Examples: MySQL, Oracle, SQL Server.

**2- What is SQL**

**a.** SQL (**Structured Query Language**) is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS).

**3- Write SQL Commands**

**a.**

1. DDL: Data Definitaion Lang. : create table, create database, use, truncate etc.
2. DML Data Manipulation Lang. : insert, update, delete
3. DQL Data Query Language. : select
4. DCL/TCL: Data/Transactional Control Lang. : commit, rollback etc..

**4- What is join?**

**a.** A JOIN Clause is used to combine rows from two or more tables, based on a related column between them.

**5- Write type of joins.**

**a.**

* (INNER) JOIN : Returns records that have matching values in both tables
* LEFT (OUTER) JOIN : Returns all records from the left table, and the matched records from the right table
* RIGHT (OUTER) JOIN : Returns all records from the right table, and the matched records from the left table
* FULL (OUTER) JOIN : Returns all records when there is a match in either left or right table

**6- How Many constraint and describes it self**

**a.**

* foreign key : its depends on primary table
* unique key : only unique value blank allow
* check : condition you should apply
* not null : no to be blank
* default : fixed value
* index : when you searching some record at that time apply indexing

**7- Difference between RDBMS vs DBMS**

**a.**

|  |  |
| --- | --- |
| **DBMS** | **RDBMS** |
| DBMS stores data as files | RDBMS stores data in tabular form. |
| DBMS does not support relationships | RDBMS supports relationships using keys. |
| DBMS has limited security | RDBMS provides strong ACID properties. |
| Examples: DBMS → MS Access, File System. | Examples: RDBMS → MySQL, Oracle. |

**8- What is an SQL alias?**

**a.** An alias in SQL is a temporary name given to a table or column to make queries more readable. Example: SELECT name AS EmployeeName FROM Employee;

**9- Write a query to create the table in Structured Query Language.**

**a.** CREATE TABLE Employee (EmpID INT PRIMARY KEY, Name VARCHAR(50), Age INT, Salary DECIMAL(10,2));

**10- Write a query to insert data into table.**

**a.** INSERT INTO Employee (EmpID, Name, Age, Salary) VALUES (1, 'John', 30, 50000.00);

**11- Write a query to update data into table with validations.**

**a.** UPDATE Employee SET Salary = 60000 WHERE EmpID = 1 AND Age > 25;

**12- Write a query to delete data from table with validations.**

**a.** DELETE FROM Employee WHERE EmpID = 1 AND Age > 25;

**13- Write a query to insert new column in existing table.**

**a.** ALTER TABLE Employee ADD Department VARCHAR(30);

**14- Write a query to drop table and database.**

**a.** DROP TABLE Employee; DROP DATABASE Company;

**15- Write a query to find max and min value from table.**

**a.** SELECT MAX(Salary) AS MaxSalary, MIN(Salary) AS MinSalary FROM Employee;

**16- What is API Testing**

**a.** API Testing is a type of software testing that validates Application Programming Interfaces (APIs) directly to ensure they meet functionality, reliability, performance, and security requirements.

**17- Types of API Testing**

**a.**  
- Functional Testing: Checks API functionality.  
- Load Testing: Tests API performance under heavy load.  
- Security Testing: Ensures API is secure from threats.  
- Reliability Testing: Ensures API can be consistently used.  
- Validation Testing: Ensures API meets business requirements.

**18- What is Responsive Testing?**

**a.** Responsive Testing ensures that a web application or website adapts correctly to different devices, screen sizes, and resolutions (desktop, tablet, mobile).

**19- Which types of tools are available for Responsive Testing**

**a.**  
- Browser Developer Tools (Chrome DevTools)  
- BrowserStack  
- CrossBrowserTesting  
- LambdaTest  
- Responsinator

**20- What is the full form of .ipa, .apk**

**a.**

* .ipa → iOS App Store Package (used for iOS applications)
* .apk → Android Package Kit (used for Android applications)

**21- How to create step for to open the developer option mode ON?**

**a.**

Steps to enable Developer Options (Android):  
1. Open Settings on your phone.  
2. Scroll down and select 'About phone'.  
3. Tap 'Build number' 7 times until a message shows 'You are now a developer'.  
4. Go back to Settings → System → Developer Options (now visible).  
5. Toggle Developer Options ON.