1. What is RDBMS:

- RDBMS stands for Relational Database Management System.
 RDBMS is the basis for SQL, and for all modern database systems like
 MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access.
- A Relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model.

2. What is SQL:

- SQL tutorial gives unique learning on Structured Query Language and it helps to make practice on SQL commands which provides immediate results.
- Structured Query Language (SQL) is a programming language for storing and processing information in a relational database. A relational database stores information in tabular form, with rows and columns representing different data attributes and the various relationships between the data values.

3. Write SQL Commands:

1. DDL - Data Definition Language:

CREATE: Creates a new table, a view of a table, or other object in

database.

ALTER: Modifies an existing database object, such as a table. **DROP**: Deletes an entire table, a view of a table or other object

in the database.

2. DML - Data Manipulation Language:

INSERT : Creates a recordUPDATE : Modifies recordsDELETE : Deletes records

3. DCL - Data Control Language:

GRANT: Gives a privilege to user

REVOKE: Takes back privileges granted from user

4. DQL - Data Query Language:

SELECT: Retrieves certain records from one or more tables.

4. What is join:

 The SQL JOIN is a command clause that combines records from two or more tables in a database. It is a means of combining data in fields from two tables by using values common to each table.

5. Write type of joins:

- **INNER JOIN**: returns rows when there is a match in both tables.
- **LEFT JOIN**: returns all rows from the left table, even if there are no matches in the right table.
- **RIGHT JOIN**: returns all rows from the right table, even if there are no matches in the left table.
- **FULL JOIN**: returns rows when there is a match in one of the tables.

6. How Many constraint and describes it self:

- 1. NOT NULL Ensures that a column cannot have a NULL value
- 2. <u>UNIQUE</u> Ensures that all values in a column are different
- 3. PRIMARY KEY A combination of NOT NULL and UNIQUE. Uniquely identifies each row in a table
- 4. FOREIGN KEY Prevents actions that would destroy links between tables
- 5. CHECK Ensures that the values in a column satisfies a specific condition
- 6. <u>DEFAULT</u> Sets a default value for a column if no value is specified
- 7. CREATE INDEX Used to create and retrieve data from the database very quickly

7. <u>Difference between RDBMS vs DBMS</u>:

DBMS

- DBMS stores data as a file.
- Data elements need to be accessed individually.
- No relationship between data.
- Normalization is not present.
- DBMS does not support distributed databases.
- It stores data in either a navigational or hierarchical form.
- It deals with a small quantity of data.
- It is used for small organizations and deals with small data.

RDBMS

- <u>RDBMS</u> stores data in tabular form.
- Multiple data elements can be accessed at the same time.
- Data is stored in the form of tables which are related to each other.
- Normalization is present.
- RDBMS supports distributed databases.
- It uses a tabular structure where the headers are the column names, and the rows contain corresponding values.
- It deals with large amounts of data.
- It is used to handle large amounts of data.

- Not all Codd rules are satisfied.
- Security is less
- It supports single users.
- The data in a DBMS is subject to low security levels with regards to data manipulation.
- Examples: XML, Window Registry, Forxpro, dbaseIIIplus etc.

- All 12 Codd rules are satisfied.
- More security measures provided.
- It supports multiple users.
- There exists multiple levels of data security in a RDBMS.
- Examples: MySQL,
 PostgreSQL, SQL Server,
 Oracle, Microsoft Access etc.

8. What is an SQL alias:

• In SQL, an alias is a temporary name given to a table, column, or expression in a query .

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

> Create table seller (id int(11) primary key Auto_increment, Name varchar(255), Contact bigint(11), Address varchar(255), Email varchar(255), Password varchar(255));

Ans: id name contact address email password

10. Write a query to insert data into table:

Insert into seller (name, contact, address, email, password Values ('Akash1', 8866146757, 'Vizag', 'akash.nagar@petpooja.com', 'akash67');

Ans: 1 Akash1 8866146757 Vizag akash.nagar@petpooja.com akash67

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

> UPDATE seller set name = "Tester", contact = 9848460345 where id=1;

Ans: 1 Tester 9848460345 Vizag akash.nagar@petpooja.com akash67

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

>Delete from seller where id=3;

Ans: Third id is deleted.

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

> Alter Table seller Add column salary int(11);

Ans: Id name contact address email password salary

14. Write a query to drop table & database:

> DROP Table_seller;

Ans : seller table is deleted.

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

> Select name, MAX(salary) and MIN(salary) from seller;

Ans:

16. Create two tables named Seller and Product apply foreign key in product table Fetch data from both table using different joins:

> Create Table product
(pid int(11) primary key Auto_increment,
Pname varchar(255),
pprice int(11),
pcategory varchar(255),
Seller_id int(11),
Foreign key(seller id) Reference seller(id));

Ans: search a specific data from both the table into a single table.

17. What is API Testing:

- Application Programming Interface (API) is a software interface that allows two applications to interact with each other without any user intervention.
- API (Application Programming Interface) is a computing interface which enables communication and data exchange between two separate software systems.
- The purpose of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.

18. Types of API Testing:

- Open APIs: These types of APIs are publicly available to use like OAuth APIsfrom Google. It has also not given any restriction to use them. So, they are also known as Public APIs.
- **Partner APIs**: Specific rights or licenses to access this type of API because they are not available to the public.
- Internal APIs: Internal or private. These APIs are developed by companies
 to use in their internal systems. It helps you to enhance the productivity of
 your teams.

19. What is Responsive Testing:

- A responsive web design involves creating a flexible web page that is accessible from any device, starting from a mobile phone to a tablet.
- Furthermore, a responsive web design improves users' browsing experience.

 Considering this from a quality assurance perspective, a responsive web design requires thorough evaluation using a variety of devices before it is ready to go live.

20. Which types of tools are available for Responsive Testing:

- LT Browser
- Lembda Testing
- Google Resizer
- I am responsive
- Pixel tuner

21. What is the full form of .ipa, .apk :

- APK stands for Android Package Kit .
 APK is the file format used for distributing and installing applications on Android devices.
- IPA Intelligent Process Automation or iOS App Store Package.
 IPA is the file format used for distributing and installing applications on IOS devices.

22. How to create step for to open the developer option mode ON:

