1) What is PL/SQL?

PL/SQL stands for procedural language extension to SQL. It supports procedural features of programming language and SQL both. It was developed by Oracle Corporation in early of 90's to enhance the capabilities of SQL.

2) What is the purpose of using PL/SQL?

PL/SQL is an extension of SQL. While SQL is non-procedural, PL/SQL is a procedural language designed by Oracle. It is invented to overcome the limitations of SQL.

3) What is PL/SQL table? Why it is used?

Objects of type tables are called PL/SQL tables that are modeled as database table. We can also say that PL/SQL tables are a way to providing arrays. Arrays are like temporary tables in memory that are processed very quickly. PL/SQL tables are used to move bulk data. They simplifies moving collections of data.

4) What are the datatypes available in PL/SQL?

There are two types of datatypes in PL/SQL:

1. **Scalar datatypes** Example are NUMBER, VARCHAR2, DATE, CHAR, LONG, BOOLEAN etc.
2. **Composite datatypes** Example are RECORD, TABLE etc.

5) What is the basic structure of PL/SQL?

PL/SQL uses BLOCK structure as its basic structure. Each PL/SQL program consists of SQL and PL/SQL statement which form a PL/SQL block.

PL/SQL block contains 3 sections.

1. The Declaration Section (optional)
2. The Execution Section (mandatory)
3. The Exception handling Section (optional)

6) What is the difference between FUNCTION, PROCEDURE AND PACKAGE in PL/SQL?

**Function**: The main purpose of a PL/SQL function is generally to compute and return a single value. A function has a return type in its specification and must return a value specified in that type.

**Procedure**: A procedure does not have a return type and should not return any value but it can have a return statement that simply stops its execution and returns to the caller. A procedure is used to return multiple values otherwise it is generally similar to a function.

**Package**: A package is schema object which groups logically related PL/SQL types , items and subprograms. You can also say that it is a group of functions, procedure, variables and record type statement. It provides modularity, due to this facility it aids application development. It is used to hide information from unauthorized users.

7) How to write a single statement that concatenates the words ?Hello? and ?World? and assign it in a variable named Greeting?

Greeting := 'Hello' || 'World';

8) Does PL/SQL support CREATE command?

No. PL/SQL doesn't support the data definition commands like CREATE.

9) How exception is different from error?

Whenever an Error occurs Exception arises. Error is a bug whereas exception is a warning or error condition.

10) What is the main reason behind using an index?

Faster access of data blocks in the table.

11) What are PL/SQL exceptions? Tell me any three.

1. Too\_many\_rows
2. No\_Data\_Found
3. Value\_error
4. Zero\_error etc.

12) What are some predefined exceptions in PL/SQL?

A list of predefined exceptions in PL/SQL:

* DUP\_VAL\_ON\_INDEX
* ZERO\_DIVIDE
* NO\_DATA\_FOUND
* TOO\_MANY\_ROWS
* CURSOR\_ALREADY\_OPEN
* INVALID\_NUMBER
* INVALID\_CURSOR
* PROGRAM\_ERROR
* TIMEOUT \_ON\_RESOURCE
* STORAGE\_ERROR
* LOGON\_DENIED
* VALUE\_ERROR
* etc.

13) What is a trigger in PL/SQL?

A trigger is a PL/SQL program which is stored in the database. It is executed immediately before or after the execution of INSERT, UPDATE, and DELETE commands.

14) What is the maximum number of triggers, you can apply on a single table?

12 triggers.

15) What is the difference between execution of triggers and stored procedures?

A trigger is automatically executed without any action required by the user, while, a stored procedure is explicitly invoked by the user.

16) How to disable a trigger name update\_salary?

ALTER TRIGGER update\_salary DISABLE;

17) Which command is used to delete a trigger?

DROP TRIGGER command.

18) What is stored Procedure?

A stored procedure is a sequence of statement or a named PL/SQL block which performs one or more specific functions. It is similar to a procedure in other programming languages. It is stored in the database and can be repeatedly executed. It is stored as schema object. It can be nested, invoked and parameterized.

19) What are the different schemas objects that can be created using PL/SQL?

* Stored procedures and functions
* Packages
* Triggers
* Cursors

20) What will you get by the cursor attribute SQL%ROWCOUNT?

The cursor attribute SQL%ROWCOUNT will return the number of rows that are processed by a SQL statement.

21) How to execute a stored procedure?

There are two way to execute a stored procedure.

From the SQL prompt, write EXECUTE or EXEC followed by procedure\_name.

1. **EXECUTE** or [**EXEC**] procedure\_name;

Simply use the procedure name

1. procedure\_name;

22) What are the cursor attributes used in PL/SQL?

**%ISOPEN**: it checks whether the cursor is open or not.

**%ROWCOUNT**: returns the number of rows affected by DML operations: INSERT,DELETE,UPDATE,SELECT.

**%FOUND**: it checks whether cursor has fetched any row. If yes - TRUE.

**%NOTFOUND**: it checks whether cursor has fetched any row. If no - TRUE.