**TCS – Python Technical Questions:**

* What is python and where we apply python in the real world ( Examples only)
* Advantages of python programming over other programming language
* Why python is interpreted Programming language
* Differentiate Compiled programming language and Interpreted programming language
* Data Types in python with examples
* Prepare more about List, Tuple and Set data types in python
* Prepare any 10 Basic Programs that was cover list, tuple and set concepts(very important)
* Differentiate both list and tuple show it with proper example program and explain
* Perform different operations on list and tuple using predefined methods with programs also ready to write a programs without using predefined functions
* About numpy module in python and related programs

**TCS – Python Object Oriented Programming (OOP’s) Cocepts:**

* Why OOPs and we have to with objects in pythons
* Importance of Python Object oriented Programming and its principles
* Explain about special methods like \_\_init\_\_() and \_\_new\_\_() with example program
* Explain about self, cls variables in python and what is their important.
* Define class, object by taking one program and explain it with real time examples?
* Explain the following topics with real time examples

1. Data Hiding
2. Data Abstractions
3. Data Encapsulations
4. Inheritance
5. Polymorphism

**Note: for all the above topics prepare one example program and explain it with one real time example how and where we implemented them( take different examples and explain in proper way don,t tell sample example everyone it is very important)**

* About super () method and it is working with example program?
* Exception Handling Mechanism
* Difference between Error and Exception and also explain what happened when error and exception occurs in the program also explain how we can rectified them with exception handling mechanisms
* Explain about try, catch, finally keywords with example programs
* Define instantiation and constructors processing in Python OOPs
* Define static methods and instance methods in python oops
* Explain about Method Resolution Order in Inheritance Mechanism in Python OOPs

**TCS – Java Interview Questions:**

* What is Java and compare it over C, C++ languages
* Explain about Java Features
* What are the access modifiers in java explain with examples
* Explain about few of Java Keywords
* What is Object Oriented Programming Language
* Features of OOPs
* What is difference between function and method
* What is class and object
* Explain about polymorphism
* Does java support Multiple Inheritance? If not why?
* What is this keyword in how it is work
* What is static keyword in how it is work
* What is final keyword in how it is work
* What is constructor
* Types of constructors
* Explain about super keyword in java
* What is difference between method and constructor
* What is Instance Variable and how it is differ from local variable
* What is difference between static and instance variable
* Explain about Polymorphism
* Explain about Method Overloading and Method Overriding with example program and real time example explanation?
* What is an array in java and explain with example program
* Does java support operator overloading
* What is difference between POP and OOP’s Languages?
* What is Data Abstraction in java explain it with real time example?
* What is abstract method and abstract class with example program
* What is the drawback of abstract class
* What is interface in java
* What is the difference between abstract class and interface
* Does interface contains variables?
* What is package in java
* Explain about java,util.\*; package in details?
* Define Exception in java
* What is difference between error and exception
* Advantages of exception handling technique in java
* Explain about try-catch block with examples
* Difference between checked exception and un-checked exception
* Explain about multithreading in java
* Life cycle of multi threading in java
* Explain about synchronized thread/block/method/variable in java
* What is difference between StringBuilder and StringBuffer Class in java?
* What is the difference between == operator and equals() method in java
* What is Collections Framework in java
* Explain about HashMap, LinkedHashMap, ArrayList with example program
* Difference between set and list in java
* What is JDBC in java
* Explain about different types of JDBC Drivers in java
* Steps to required to write JDBC Program in java
* What is Statement class and how it works?
* Difference between Statement and PreparedStatement Class in java
* Difference between Statement and CallableStatement Class in java
* Simple Java Program using JDBC?

**TCS – DBMS Interview Questions:**

* Define Database and DBMS
* Advantages of Databases and explain different types of database software’s
* Define SQL?
* Differentiate DBMS and SQL?
* Differentiate SQl and NOSQL
* Explain something about MongoDB where we are using MongoDB and its applications
* Explain about basic types of commands

1. DDL
2. DML
3. TCL

* Differentiate where clause and having clause
* Explain about group by clause with example query
* Query to write how retrieve the second third and nth highest salary from the table(very important)
* Operators in SQL and explain
* What is structural database and unstructured database and distinguish both?
* Aggregation functions like count(\*),Min(), Max(), Sum() and Avg() functions with example Queries?
* Keys in DBMS ( super key, candidate key, alternative key, composite key, primary key not null and foreign key also prepare example queries)
* Normalizations and Normal forms ( all types very important)
* Functional Dependencies ( FD,PFD, MVD, TFD, TFD,NTFD,CNTFD)
* About sub queries, nested queries
* Joins and types of joins in DBMS

**TCS – Data Structures Interview Questons:**

* Explain about Linked List
* Stacks
* Queues
* Linear search and binary search example programs
* Sorting Techniques and Time Complexities ( Very Important)
* Trees and types of Trees and all the definitions of Graphs

**TCS – HR Questions:**

* Self Introduction
* About InfyTQ Certification and Infosys company
* About project
* Roles and responsibilities in project
* What is your role in project how you managed your work
* What is toughest decision you have taken in your life
* What are challenges that you have to taken in your projects
* Strengths and weakness
* About hobbies
* Any certifications do you completed and explain
* What is your weakness and how you convert it as strength
* Why should I hire you
* Why your coming for IT Sectors
* Being a CIVIL,EEE, MECH,ECE student why you chose IT Sectors
* About Goals and Ambitions
* Where do you to see yourself after five years
* Are willing to relocate any locations
* Tell me an instance how you deal with stress
* How you communicate with your team, how you managed your work