Q1. What is the purpose of the try statement?

Ans:- The Python try… except statement runs the code under the “try” statement. If this code does not execute successfully, the program will stop at the line that caused the error and the “except” code will run. The try block **allows you to test a block of code for errors**.

A try statement is used **to catch exceptions that might be thrown as your program executes**. You should use a try statement whenever you use a statement that might throw an exception That way, your program won't crash if the exception occurs.

Q2. What are the two most popular try statement variations?

Ans:-

Error in Python can be of two types i.e. **Syntax errors and Exceptions**. Errors are the problems in a program due to which the program will stop the execution. On the other hand, exceptions are raised when some internal events occur which changes the normal flow of the program.

Q3. What is the purpose of the raise statement?

Ans:- The raise keyword is used **to raise an exception**. You can define what kind of error to raise, and the text to print to the user.

The raise statement **allows the programmer to force a specific exception to occur**. The sole argument in raise indicates the exception to be raised. This must be either an exception instance or an exception class (a class that derives from Exception).

The RAISE statement **stops normal execution of a PL/SQL block or subprogram and transfers control to an exception handler**. RAISE statements can raise predefined exceptions, such as ZERO\_DIVIDE or NO\_DATA\_FOUND , or user-defined exceptions whose names you decide.

Q4. What does the assert statement do, and what other statement is it like?

Ans:- An assert statement **checks whether a condition is true**. If a condition evaluates to True, a program will keep running. If a condition is false, the program will return an AssertionError. At this point, the program will stop executing.

An assertion **allows testing the correctness of any assumptions that have been made in the program**.

raise is typically used when you have detected an error condition. **assert is similar** but the exception is only raised if a condition is met.

Q5. What is the purpose of the with/as argument, and what other statement is it like?

Ans:- with statement in Python is used in exception handling to make the code cleaner and much more readable. It **simplifies the management of common resources like file streams**.

with statement **helps avoiding bugs and leaks by ensuring that a resource is properly released when the code using the resource is completely executed**. The with statement is popularly used with file streams, as shown above and with Locks, sockets, subprocesses and telnets etc.