Q1. What are the two latest user-defined exception constraints in Python 3.X?

Ans: User-defined exceptions are created to force certain constraints on the values of the variables. To create a User-defined Exception, we have to create a class that implements the Exception class. We can raise(throw) these exceptions using the raise keyword. Some of the standard exceptions which are most frequent include IndexError, ImportError, IOError, ZeroDivisionError, TypeError.

Q2. How are class-based exceptions that have been raised matched to handlers?

Ans: A class-based exception can either cancel the current context or allow for a resume. Exceptions are raised using the statement RAISE EXCEPTION and handled using CATCH in a TRY control structure. Class-based exceptions can be raised in any procedures and can be further propagated by any procedures.

Q3. Describe two methods for attaching context information to exception artefacts.

Ans: Using arguments for Exceptions in Python is useful for the following reasons:

1. It can be used to gain additional information about the error encountered.

1. As contents of an Argument can vary depending upon different types of Exceptions in Python, Variables can be supplied to the Exceptions to capture the essence of the encountered errors. Same error can occur of different causes, Arguments helps us identify the specific cause for an error using the except clause.

1. It can also be used to trap multiple exceptions, by using a variable to follow the tuple of Exceptions.

Q4. Describe two methods for specifying the text of an exception object's error message.

Ans: To get the default error message we need to pass the statement as – except Exception as e, print(e). In order to add the additional information to the default error we need to pass our additional information in the print statement.

Q5. Why do you no longer use string-based exceptions?

Ans: Two distinct string objects with the same value are considered different exceptions. This is done to force programmers to use exception names rather than their string value when specifying exception handlers. The string value of all built-in exceptions is their name, but this is not a requirement for user-defined exceptions or exceptions defined by library modules.