Q1. Describe three applications for exception processing.

Ans: An exception in Python is an incident that happens while executing a program that causes the regular course of the program's commands to be disrupted. When a Python code comes across a condition it can't handle, it raises an exception. An object in Python that describes an error is called an exception. When a Python code throws an exception, it has two options: handle the exception immediately or stop and quit.

Try and Except Statement - Catching Exceptions: In Python, we catch exceptions and handle them using try and except code blocks. The try clause contains the code that can raise an exception, while the except clause contains the code lines that handle the exception.

Raise an Exception : If a condition does not meet our criteria but is correct according to the Python interpreter, we can intentionally raise an exception using the raise keyword. We can use a customized exception in conjunction with the statement.

The assert Statement : Python examines the adjacent expression, preferably true when it finds an assert statement. Python throws an AssertionError exception if the result of the expression is false.

Q2. What happens if you don't do something extra to treat an exception?

Ans: If we do not treat an exception the code will not able to switch the path if the error occurred during the execution in one path and will not give the required output and terminate the program.

Q3. What are your options for recovering from an exception in your script?

Ans: The try-catch is the simplest method of handling exceptions. Put the code you want to run in the try block, and any exceptions that the code throws are caught by one or more catch blocks. This method will catch any type of exceptions that get thrown. This is the simplest mechanism for handling exceptions.

Q4. Describe two methods for triggering exceptions in your script.

Ans: Two methods for triggering exceptions are

1. Raise an Exception
2. Try and Except

Q5. Identify two methods for specifying actions to be executed at termination time, regardless of whether or not an exception exists.

Ans: The code written in the Finally statement will be executed for sure even if the try statement fails and exception statement raise an error. And the code written in the Else statement will be executed only when the try statement is executed successfully.