Q1. Describe three applications for exception processing.

Exception Processing is used in Various Applications of which few examples are:

1. Checking Appropriate use of input in an application
2. Checking for Arithmetic exceptions in mathematical executions
3. Checking File I/O exceptions during File handling

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

When an exception occurred, if you don’t handle it, the program terminates abruptly and the code past the line that caused the exception will not get executed. Inshort inability of program to handle exceptions will result in crashing of program.

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

I will use **try** and **except** statements for recovering from an exception in the script.

I will put the Statements that can raise exceptions inside the try clause and the statements that handle the exception are written inside except clause.

a = [1, 2, 3]

try:

    print ("Second element = %d" %(a[1]))

  # Throws error since there are only 3 elements in array

    print ("Fourth element = %d" %(a[3]))

except:

    print ("An error occurred")

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

1. Assert - Python evaluates the expression, which is hopefully true. If the expression is false, Python raises an *AssertionError exception*.
2. Raise – . If the expression is evaluates true then the error is raises.

The raise keyword is used to raise an exception.here our condition i.e expression is true -1<0. Hence this raises exception.

x = -1

if x < 0:

raise Exception("Sorry, no numbers below zero")

o/p -Traceback (most recent call last):

File "./prog.py", line 3, in <module>

Exception: Sorry, no numbers below zero

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

Python Provides **else** and **finally** blocks for specifying actions to be executed at termination time, regardless of whether an exceptions exists or not.