

Roll No: 20BCM050

Name: Monit Patel

Batch: B3

Course Code: CSI0402

Practical 7

Source Code:

```
import matplotlib.pyplot as plt
from scipy import stats
import numpy
x = [5,7,8,7,2,17,2,9,4,11,12,9,6]
y = [99,86,87,88,111,86,103,87,94,78,77,85,86]
slope, intercept, r, p, std_err = stats.linregress(x, y)
def myfunc(x):
    return slope * x + intercept
mymodel = list(map(myfunc, x))
plt.scatter(x, y)
plt.plot(x, mymodel)
plt.show()
x = [1,2,3,5,6,7,8,9,10,12,13,14,15,16,18,19,21,22]
y = [100,90,80,60,69,55,69,69,72,70,75,76,78,79,90,99,99,100]
mymodel = numpy.poly1d(numpy.polyfit(x, y, 3))
myline = numpy.linspace(1, 22, 100)
plt.scatter(x, y)
plt.plot(myline, mymodel(myline))
plt.show()
```

Output:

