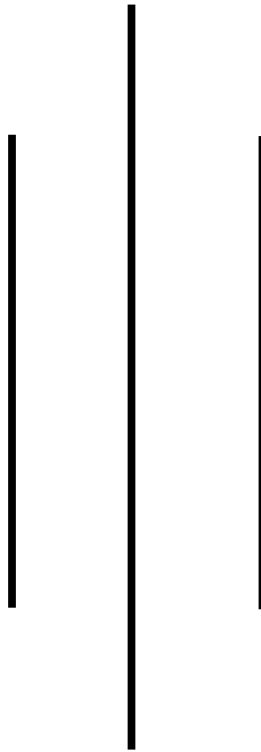# Deerwalk Institute of Technology

Neural Network

LAB SHEET - 2

Submitted By:
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Section: A
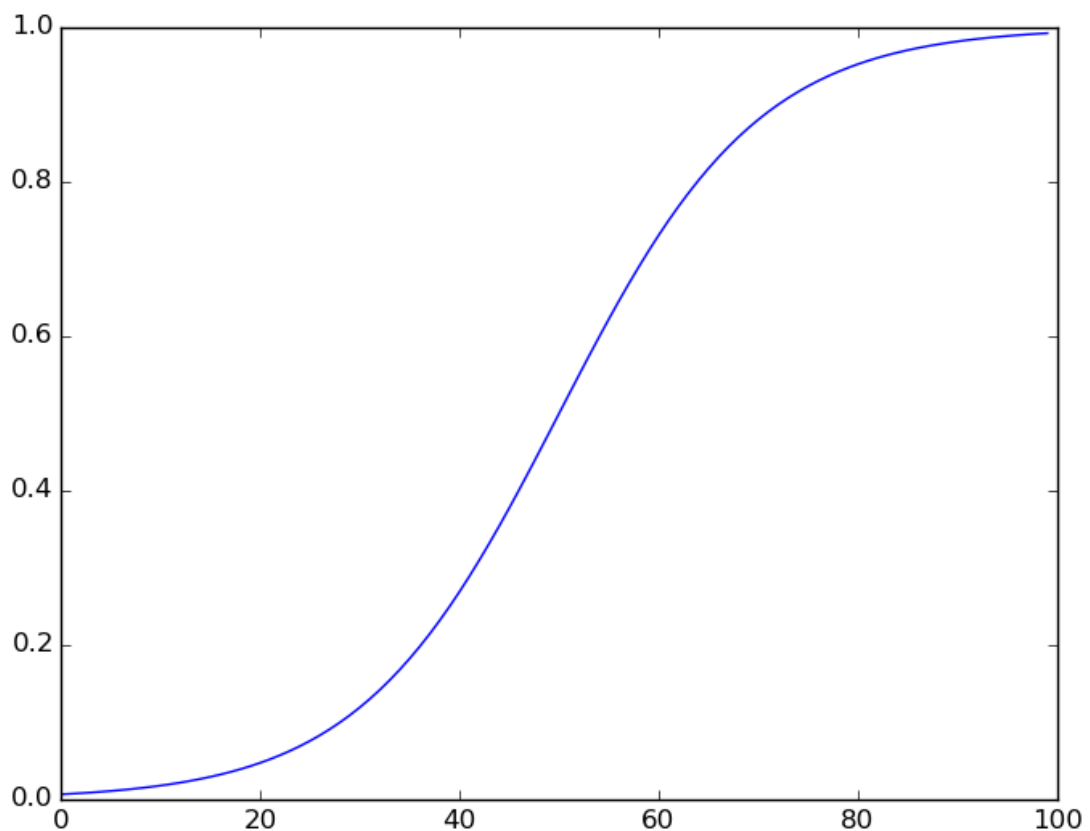
Submitted To:
Sarbin Sayami

1. Graph plot of sigmoid function through program

Sigmoid.py

```python
import matplotlib.pyplot as plt
import math
import numpy
y = []
x = numpy.arange(-5,5,0.1)
for i in x:
    val = 1/(1+math.exp(-i))
    y.append(val)
plt.plot(y)
plt.show()
```

Output:

2. Visualization of Mexican Hat function

Mexicanhat.py

```python
import matplotlib.pyplot as plt
import numpy
import math
y = []
x = numpy.arange(-5,5,0.1)
for i in x:
    val = ((1-i**2)*math.exp(-i**2/2))
    y.append(val)
plt.plot(y)
plt.show()
```

OutPut: