**SOFT COMPUTING PRACTICAL**

**OBJECTIVE- Write a program to implement Linear Separability for AND/OR function.**

**CODE-**

**LINEAR SEPERABILITY FOR AND-**

import numpy as np

import matplotlib as plt

x = np.array([0,1,0])

y = np.array([0,0,1])

plt.pyplot.scatter(x,y,c='red')

plt.pyplot.scatter(1,1,c="green")

plt.pyplot.xlabel('Input 1')

plt.pyplot.ylabel('Input 2')

w=-1

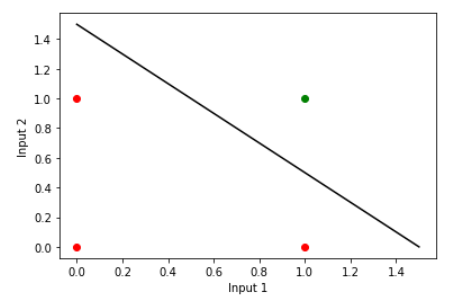
b=1.5

x = np.linspace(0,1.5)

plt.pyplot.plot(x,w\*x+b,c='black')

plt.pyplot.show()

**OUTPUT-**



**LINEAR SEPERABILITY FOR OR-**

import numpy as np

import matplotlib as plt

x = np.array([0,1])

y = np.array([0,1])

plt.pyplot.scatter(x,y,c='purple')

x = np.array([1,0])

y = np.array([0,1])

plt.pyplot.scatter(x,y,c="red")

plt.pyplot.xlabel('Input 1')

plt.pyplot.ylabel('Input 2')

w=-1

b=1.5

x = np.linspace(0,1.5)

plt.pyplot.plot(x,w\*x+b,c='black')

plt.pyplot.show()

**OUTPUT-**

