PRACTICAL 1

A. AIM: Design a simple linear neural network model.

```
w = float(input("Enter the value for weight: "))
b = float(input("Enter the value for bias: "))
x = float(input("Enter the value for input: "))
# The net input is calculated with the formula yin = b + wx
print("The net input (yin): ")
yin = float(b + (w * x))
print(yin)
```

Output:

```
Enter the value for weight: 1
Enter the value for bias: 1
Enter the value for input: 2
The net input (yin):
3.0
```

PRACTICAL 1

B. AIM: Calculate the o/p of neural network of both Binary and Bipolar

```
n=int(input("Enter the number of input neurons: "))
w=[]
x=[]
for i in range(0,n):
    a=float(input("Enter the input: "))
    x.append(a)
    b=float(input("Enter the weight: "))
    w.append(b)
print("The weight given are: ",w)
print("The given inputs are: ",x)
y=0.0
for i in range(0,n):
    y=y+(w[i]*x[i])
print("The net input is: ",round(y,3))
```

Output:

```
Enter the number of input neurons: 2
Enter the input: 1
Enter the weight: 1
Enter the input: 2
Enter the weight: 1
The weight given are:  [1.0, 1.0]
The given inputs are:  [1.0, 2.0]
The net input is:  3.0
```