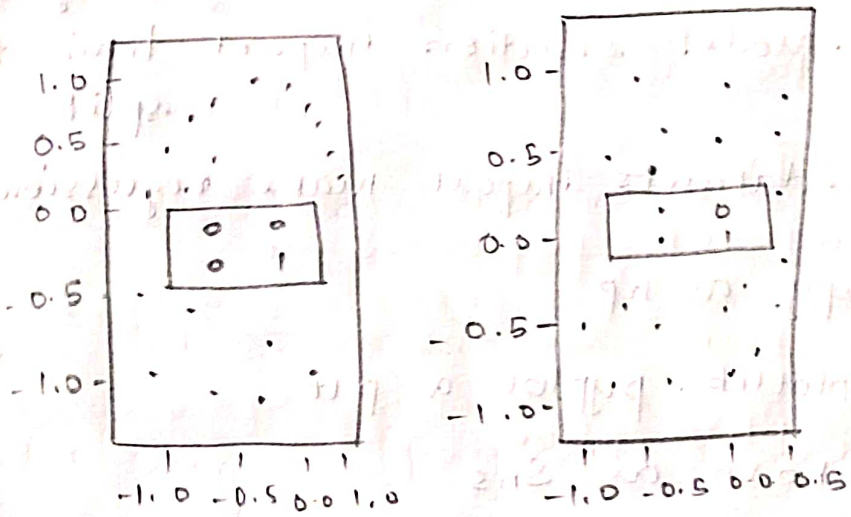
Exp. No : 10 Implementing artifical neural
Date networks for an application
using python - classification

Code:

```
Sklearn.model_selection import train_test_
from sklearn.datasets import make_circles
import from sklearn.neural_network import M
                                    classifier
from numpy as np
import matplotlib.pyplot as plt
  import seaborn as sns
  %. matplotlib inline
x_train ,y_train =make_circles (n_samples
                    700, noise = 0.05 )
x_test, y_test = make_circles (n_samples =
                    300, noise = 0.05)
sns. scatteeplot (x_train [:, 0], x_train
[:, 1], hue = y_train )
plt. title ("Train data")
 plt. show()
if =MLP classifier (max_iter =1000)
if. fit (x_train , y_train )
 y_pred = if. predict (x_test)
  fig. ax = plt. subplots (1. 2)
```

```
sns.scatterplot(x_test[:,0],
x_test[:,1], true = y_pred, ax=ax[0])
plt.show()
```

o/p:



Result:

The program was successfully executed and the o/p is verified.