Kindly find below report for assignment question:

Question 1::

Ran the double moon algorithm provided by professor Yimin Yang.

And plotted the classification error rate graph and double moon figure for d=0.

Attached files:

I) Classification error rate graph

II) Double moon figure

Question 2::

Designed a Perceptron algorithm and ran it over 50 epochs (each of 50 iterations) to get the maximum accuracy weights.

Learning rate has been changed accordingly over the period.

Attached files:

I) Dataset (Training and testing) - Skin samples classification(https://archive.ics.uci.edu/ml/datasets/Skin+Segmentation)

II) MATLAB code

III) Classification error rate graph (which shows the testing accuracy around 97%)

Steps to run a Perceptron Algorithm MATLAB code:

1. Execute 'run' file in command window. This will plot a classification error rate graph.