1- The objective of this experimental is to study a two-dimensional classification problem that involves nonconvex decision regions. The distribution of pattern classes C1 and C2 is shown below. Class C1 is the black part of the pattern which is also marked in the fig. Class C2 consists of white part of patterns points which is also marked in the fig. The problem is to design a neural network classifier that decides whether an input pattern belongs to class C1 or C2.

i) select a pattern set to be used for training

ii) Select a pattern to evaluate the performance of the network after training

iii) Plot performance (Learning curve) for the training phase

iv)Study the effect of the number of neuron in the hidden layer, number of hidden layers, the learning rate, momentum coefficients, data normalization, etc, on the performance and learning speed of the network (8p)



2- P4.19, Zurada