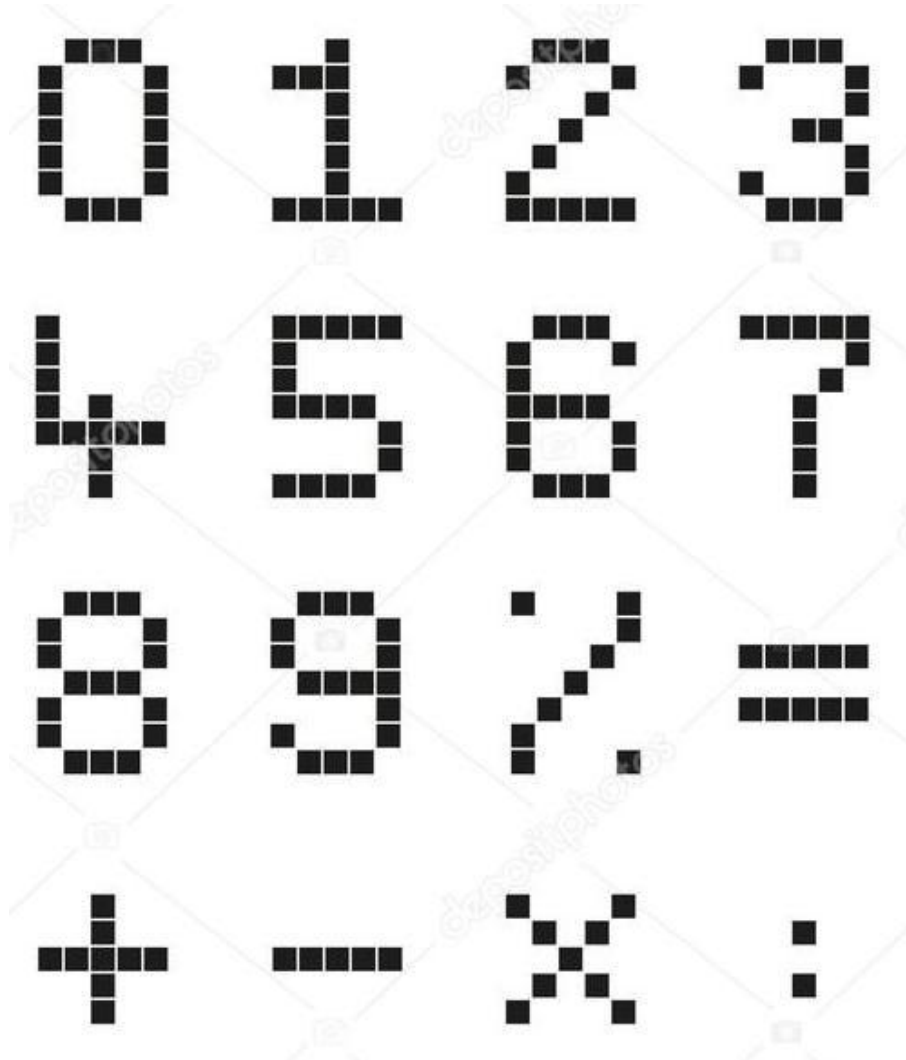


MECA533 Homework 2

Consider a 7X5 Hopfield network that can be trained for each of the numerals and symbols below:



You are required to determine the learning capacity of the network for different noise levels empirically. In every experiment, train a certain number of patterns first and then apply a perturbed pattern as the initial condition to see whether it converges to one of the learned patterns. In your experiments, noise levels of 9% (3 pixels), 20% (7 pixels) and 29% (10 pixels) will be used.

Provide MATLAB codes and sample cases in your submission.