DSE 3159 Week-3 Batch 3 – Weekly Exercises

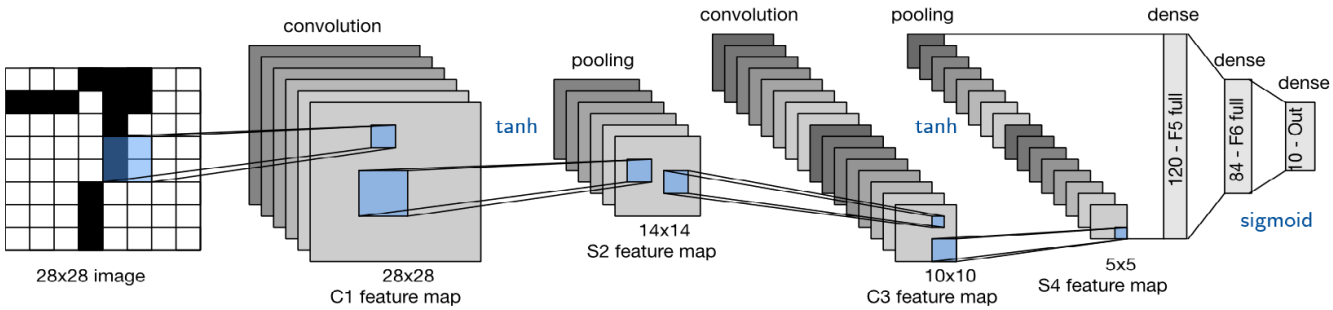
Q) Train, Test and plot the performance curves the following architectures over the MNIST dataset as well as the CIFAR-10 dataset.

1. Design a CNN with:

a) One Convolution layer which uses 32 kernels each of size 3x3, stride = 1 and, padding =0
b) One Pooling layer which uses MAXPOOLING with stride =2.
c) One hidden layer having number of neurons = 100

Note: uses ReLU activation function after each convolution layer.

2. Design the LeNet-5 architecture (see fig below)



S =1, F=5, K=6, P=2

S =2, F=2, K=6, P=0

S =1, F=5, K=16, P=0

S =2, F=2, K=16, P=0