

Laboratory 6 – Exercises

1. Classify the SVHN dataset (32×32 images, 10 classes, 73257 training images and 26032 testing images) using ResNet architecture by applying only two modules of residual blocks. Train the model for 10 epochs with $lr = 0.9$ and $batch_size = 256$. Plot the training and validation accuracy.
2. Classify the SVHN dataset (32×32 images, 10 classes, 73257 training images and 26032 testing images) using the following convolutional neural network architecture. Divide the training dataset as follows: 30000 validation images and 43257 training images. Train your model for 5 epochs using a learning rate of 0.05 and a batch size of 256. Define a class for implementing the Convolutional Block. Conv2d, 32, 3×3 means 32 output channels and 3×3 kernel size. Use padding, if necessary.

