Problem 2

Network Layers	15
Convolution layers	14
ReLU layers	14
batch normalization layers	14
pooling layers	4
Linear layer	1
Kernel Size (K)	3
Stride (S)	1
Padding (P)	1
Conv Layer 1	in_channels=3,K,out_channels=32,S,P
Conv Layer 2	in_channels=32,K,out_channels=32,S,P
Conv Layer 3	in_channels=32,K,out_channels=32,S,P
Max Pool 1	kernel_size=2
Conv Layer 4	in_channels=32,K,out_channels=64,S,P
Conv Layer 5	in_channels=64,K,out_channels=64,S,P
Conv Layer 6	in_channels=64,K,out_channels=64,S,P
Conv Layer 7	in_channels=64,K,out_channels=64,S,P
Max Pool 2	kernel_size=2
Conv Layer 8	in_channels=64,K,out_channels=128,S,P
Conv Layer 9	in_channels=128,K,out_channels=128,S,P
Conv Layer 10	in_channels=128,K,out_channels=128,S,P
Conv Layer 11	in_channels=128,K,out_channels=128,S,P
Max Pool 3	kernel_size=2
Conv Layer 12	in_channels=128,K,out_channels=128,S,P
Conv Layer 13	in_channels=128,K,out_channels=128,S,P
Conv Layer 14	in_channels=128,K,out_channels=128,S,P
Average Pool	Kernel Size=4
Linear Layer	in_features=128,out_features=num_classes
Optimizer	Adam
Learning Rate	0.001
Weight Decay	0.0001
Batch Size	32
Loss function	CrossEntropyLoss
Number of Epochs	30
Train Accuracy	85.22%
Train Loss	0.4421249
Test Accuracy	84.17%

Visualization of training and Validation process: