

# DS 222 Assignment-2

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## 1 Part a

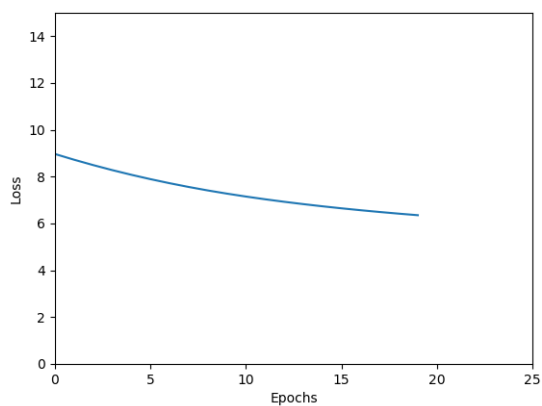
Number of epochs - 20

### 1.1 Decreasing Learning Rate

Initial Learning Rate = 0.3

Regularization = 0.003

- Decreasing Factor : 0.95
- Train Time : 524.92 secs
- Test Time : 1.53 secs
- Train Accuracy : 56.56 %
- Test Accuracy : 51.82 %

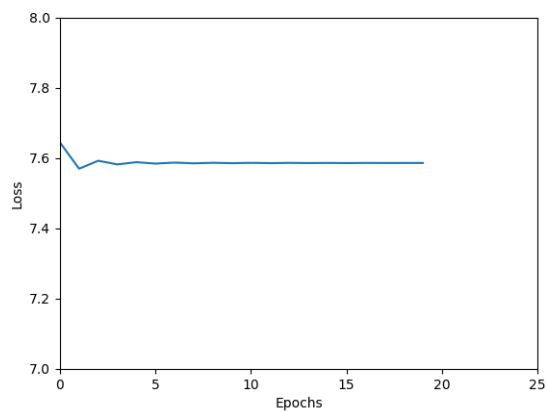


## 1.2 Constant Learning Rate

Initial Learning Rate = 0.3

Regularization = 0.001

- Train Time : 715.033 secs
- Test Time : 1.928 secs
- Train Accuracy : 57.9 %
- Test Accuracy : 52.1 %



## 1.3 Increasing Learning Rate

Initial Learning Rate = 0.1

Regularization = 0.01

- Increasing Factor : 1.05
- Train Time : 484.40 secs
- Test Time : 1.34 secs
- Train Accuracy : 40.1 %
- Test Accuracy : 38.4 %

