**Accuracy** - 81.48646652698517

**MSE** - 0.18513533

**Epoch** – 100

**Learning Rate** – 0.01

* Filtered and reshaped the dataset with 4 & 5 (v#00933455) assuming 4 as class 1 and 5 as class -1

**Decreasing Output –**

**3.2767658**

**1.9714491**

**1.4488453**

**1.1702251**

**0.9956706**

**0.87469846**

**0.7852392**

**0.71610695**

**0.66095656**

**0.61587495**

**0.5782963**

**0.54646033**

**0.5191167**

**0.4953529**

**0.474488**

**0.4560036**

**0.43949875**

**0.42465845**

**0.41123182**

**0.39901686**

**0.38784885**

**0.37759212**

**0.36813396**

**0.35938**

**0.35125035**

**0.343677**

**0.3366019**

**0.32997477**

**0.32375222**

**0.3178963**

**0.3123738**

**0.30715558**

**0.30221587**

**0.29753187**

**0.29308313**

**0.28885162**

**0.28482103**

**0.28097674**

**0.27730563**

**0.27379575**

**0.27043638**

**0.26721764**

**0.26413077**

**0.26116747**

**0.25832033**

**0.2555826**

**0.25294796**

**0.25041065**

**0.24796532**

**0.24560708**

**0.24333139**

**0.24113397**

**0.23901097**

**0.23695867**

**0.2349737**

**0.23305285**

**0.23119317**

**0.22939189**

**0.22764637**

**0.2259542**

**0.22431307**

**0.22272076**

**0.22117525**

**0.21967465**

**0.21821713**

**0.21680093**

**0.21542446**

**0.21408615**

**0.21278456**

**0.21151832**

**0.21028605**

**0.20908651**

**0.20791857**

**0.20678101**

**0.20567283**

**0.20459294**

**0.20354034**

**0.20251413**

**0.20151341**

**0.20053732**

**0.19958502**

**0.19865572**

**0.19774869**

**0.1968632**

**0.19599855**

**0.19515407**

**0.19432913**

**0.19352317**

**0.19273551**

**0.19196564**

**0.19121301**

**0.1904771**

**0.18975742**

**0.18905348**

**0.1883648**

**0.18769094**

**0.18703146**

**0.18638597**

**0.18575406**

**0.18513533**