For a Standard SGD with learning Rate = 0.05

The Cost function With Respect to the Epocs is given below:

A graph of different colored lines

Description automatically generated

Optimizers:

'SGD': 'learning\_rate': 0.05, 'momentum': 0.5

'Adagrad': 'learning\_rate': 0.1, 'epsilon': 1e-8

'RMSprop': 'learning\_rate': 0.005, 'epsilon': 1e-8}

'Adam': 'learning\_rate': 0.05,'beta\_1': 0.9, 'beta\_2': 0.999, 'epsilon': 1e-8

The result here shows that All the three optimizers converges faster than SGD and Adam has the fastest convergence rate for above parameters giving best results.