IE406 LAB ASSIGNMENT 2

1. Find minima of following functions using Gradient Descent method with learning rate 0.01 and 0.1 and different number of iterations. Try choosing a large value of learning rate and test the convergence. For L5(θ), use the data file.
2. L1(θ) =θ2
3. L2(θ) =θ12 + θ22
4. L3(θ) = (θ-1)2
5. L4(θ) = 2(θ1-1)2 + 2(θ2-1)2
6. L5(θ) =
7. Find minimum of the function L(θ) = using Stochastic Gradient Descent method (Take the data from the data file). Choose different learning rates and number of iterations.
8. Find the minima of following functions using Steepest Descent method.
9. L1(θ) =θ2
10. L2(θ) =θ12 + θ22
11. L3(θ) = (θ-1)2
12. L4(θ) = 2(θ1-1)2 + 2(θ2-1)2
13. L5(θ) =