2)b) OR

We can see that as the no.of samples are increasing error is slowly decreasing till N=50 and after which it is again increasing.

No. of training samples - 5
Final error - 0.0323509107916

No. of training samples - 10
Final error - 0.0616553670534

No. of training samples - 20
Final error - 0.0624104462534

No. of training samples - 50
Final error - 0.0317692405124

I have attached plots of error for each iteration vs iteration for different values of N in folder.