Q.No.1:- The time until recharge for a battery in a laptop computer under common conditions has a mean of 260 minutes and a standard deviation of 49 minutes.

a) If a random sample of 36 batteries is selected, what is the probability that the mean recharging time is at most 340.6 minutes?

b) If a random sample of 25 batteries is selected, what mean recharging time is exceeded by 95% of all groups (samples) of 25 batteries
c) What should be the sample size such that the probability that mean recharging time exceeds 340.6 is 5%?

d) Are you using any approximation result for the above parts? If any, name it.