

## ABSTRACT

The acceptance sampling plans play an important role in maintaining the quality. It applies statistics to specify that how many measurements are accepted or rejected. A good acceptance sampling plan not only reduces the cost of construction inspection, but also increases the accuracy of accepted decision. In this research Probability of Acceptance, Minimum ratio of true mean life to the specified mean life and the minimum sample size for the experiment with different confidence levels are calculated by using the Exponential Model and the Rayleigh Model with one parameter. Results are explained with the tables and figures. It is concluded that as the acceptance number for the experiment increases the ratio of true mean life to the specified average life decreases for all the confidence levels and different sample sizes. We also find that as the time of experiment increases the ratio of true average life to the specified average life increases for all the confidence levels fixing the producer's risk at 5%. It can be seen that Producer's risk increases as the time of experiment increases and the sample size decreases if the producer's risk is 5%.

It is also concluded that as the acceptance number  $c$  is increased for any particular time then the required sample size is also increase. It is also clear that as the time of experiment increased for particular acceptance number then the sample size is decreased and this is true for all the confidence levels with producer's risk 5%.