

## **ABSTRACT**

This study is about acceptance sampling. A group acceptance sampling plan (GASP) based on truncated life test is developed. Lot products are assumed to follow the gamma distribution. In group acceptance sampling plan multiple number of Lot items are putted in a tester and are tested simultaneously. Acceptance sampling plans are applied to save time and costs of experiment and group acceptance sampling plans are more advantageous and useful as compared to ordinary sampling plan. Experiment time is fixed and experiment is truncated if recorded number of malfunctioned items in the sample is greater than acceptance number or experiment time is ended. Group acceptance sampling plan is supportive to reduce the producer's risk and consumer's risk. GASP using two approach and single point approach is developed. By using two point approach values of minimum number of groups and corresponding acceptance number are obtained. These results are compared with previous plan for the Weibull distribution and gamma distribution. It is seen that this developed GASP gives minimum number of groups. Using single point approach in group acceptance sampling plan probability of acceptance, minimum ratio of true average life to the specified average life and minimum number of groups are calculated for some plan parameters already chosen for modified and previous plan for gamma distribution. Results of two plans are compared. Graphical presentation is also given for the comparison of least number of groups for two point approach and single point approach. Some examples are given to clarify the use of resulted tables.