CONCLUSION

This work will be concerned with the development of uniform tables for selection of various skip-lot sampling plans through various quality measures. Also a new Three-level skip-lot plan has been introduced to reduce the amount of inspection when the quality history is found extremely better.

The system of skip-lot sampling plans, in which provision is made for inspecting only some fraction of the submitted lots when quality of the submitted product is good as demonstrated by the quality history of the product. These plans will be intended for application to product or furnished in successive lots or batches.

Under skip-lot sampling inspection, samples may be drawn from only a fraction of the submitted lots. The main purpose for skip-lot sampling is to decrease the frequency of sampling inspection and thus reduce the total inspection costs. This centers attention on one of the primary objectives of the skip-lot plans studied here to provide a system of “reduced inspection.”

All through the system of skip-lot sampling plans studied in this thesis, chain sampling plan has been considered as “Reference Sampling Plan”. Usually for testing products by attributes, a single sampling plan with small sample size is warranted due to the costly nature of testing. But single sampling plan has many disadvantages, such as, rejection of the lot for smaller number of defects and non applicability for the products of completely destructive in nature.

In such cases skip-lot sampling plans which use chain sampling plans as reference plans will be of more preferable choice as both the plans are practically applicable as skipping of inspection of lots of good quality protection to the producer is ensured and economy in sample size achieved.
Skip-Lot Sampling Plans with Chain Sampling Plans as Reference Plans have been extensively studied for most of the existing plans. Designing procedures through incoming and outgoing quality measures along with relative slopes at various points on the Operative Characteristics curve have been discussed widely and uniform tables have been constructed.

In manufacturing industries the quality inspectors and supervisors may not have exact pattern or probability distribution of the quality characteristics moreover one may not have sufficient knowledge in acceptance sampling methodologies. With the help of Ready Reference tables constructed in this study for various skip-lot sampling plans, selection of necessary parameters, like sample size and acceptance criteria.

These tables are very much useful for quality inspectors as they provide economic sample size which in turn minimizes inspection costs, time consumption and inspection errors. The main advantages of the constructed tables of skip-lot plans over other special purpose plans is the reduction in sample size for the same amount of protection.

These tables are practically feasible and desirable to use can every lot of product need not to be sample inspected, but rather the inspection of certain lots may be skipped, provided superior quality is evident in lots which have been sample inspected, and lot to lot homogeneity is reasonable assumption. The manner which lots of scheduled to be inspected or skipped is dictated by the procedure being used.

From an overall point of view and on the basis of all the plans considered, skip-lotting appears to be a good and useful acceptance sampling procedure, and might well quality as the basis for a system of reduced inspection.