Conclusion
Acceptance sampling is the technique which deals with the procedures in which decisions to accept or reject lots or process are based on the examination of samples. The work presented in this thesis mainly relates to the procedure for construction and selection of tables for sampling inspection plans/schemes/systems indexed through consumer and producer quality levels. Study of performance measures through and quality levels are also provided. Also selection of sampling plans involving minimum angle method and minimum sum of risk is studied. The study takes into consideration of both incentive and filter effects simultaneously as proposed by Vedaldi (1986)

The thesis sheds light on the acceptance sampling plans which when compared with 100% inspection, has the following advantages:

1. More economical, owing to fewer inspections.
2. Less handling of units during inspection.
3. Fewer inspection, thereby simplifying recruiting training and supervising.
4. Upgrading the inspection job from monotonous piece-by-piece decisions to lot-by-lot decision.
5. Applicable to destructive testing.
6. Rejection of entire lots rather than the return of defectives, thereby providing stronger motivation for improvement of quality.

The objective of a sampling plan is to detect the quality degradation as early as possible whether the lot quality has changed from good to poor quality level. A shift in the quality level will result in action on the supplier’s side to improve the quality rather than continuing sampling towards screening the poor lots.
Designing procedure adopted in this study:

The Various Plans which are considered for Selection of Plan

1. Designing of Sampling Plans using Specific Quality Levels
2. Designing of Sampling Plans using MAAOQ
4. Designing of Sampling Plans Trigonometrically Ratios

If within lot variation of individual units and between lots variations are equal, which implies more process variation, the dispersion of the process about the process average is zero, and each lot can be considered as non-conforming unit.

In this thesis work mainly relates to the construction and selection of the tables for Quick Switching System with Single Sampling Plan, Special type Double Sampling Plan, Repetitive Deferred Sampling Plan, Multiple Deferred Sampling Plan, as Reference Plan indexed through incoming and outgoing quality levels and relative slopes. Acceptable and Limiting. Quality Levels through Repetitive Deferred Sampling Plan, Multiple Repetitive Deferred Sample Plan, and Skip – Lot Sampling Plan, Repetitive Deferred Sampling Plan, Bagchi’s Two-Level Chain Sampling Plan, Tightened – Normal –Tightened sampling scheme, Two-Plan Switching System involving through Minimum Angle Method are studied.