Chapter 7

Conclusion
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CONCLUSION

The conclusion and the suggestions for future research are presented in this chapter.

7.1 Conclusion
The following conclusions are made from this study:

• The three-class attributes sampling plans are necessarily to be used in the place of two class attributes sampling plans where we consider the marginal items (near miss items) in the decision making process.

• This thesis mainly relates to a new procedure for three-class attributes sampling plan. The construction of these sampling plans indexed by various quality parameters such as AQL, IQL, (AQL, LQL and IQL), MAPD, AOQL and MAAOQ are presented. Comparisons are also made with the conventional two-class sampling procedures for single sampling plans.

• The examples with practical applications are also provided in this thesis, which will help the engineers and managers working in the floor or quality control department to make quick decisions to accept or reject the lot.

7.2 Suggestions
The following are the suggestions to use these three-class sampling plans:

• Floor engineers may use these procedures to the product control in order to ensure the cost effectiveness and time management.

• These plans are useful for the industries where the products with marginal quality are useable.

• For the various combinations of parametric values, new tables can be formulated using the procedures given in this thesis.

• The similar tables can also be constructed for these three-class sampling plans with other parameters.
7.3 Guidance for the Future Research

The following are the guidance for future research:

• GERT (Graphical Evolution Review Technique) analysis can be used for these sampling plans to derive the various functions such as OC function, AOQ, ATI, ASN etc,

• The random walk approach of stochastic processes can be used to study these plans.

• New parameters such as Cross over average sample number, Cross over average total inspection can be developed for three-class attributes sampling plans.

• The concept of mixed sampling plans and reliability based mixed sampling plans can also be developed for three-class attributes sampling plans.

• Many of the two-class attributes plans such as conditional double sampling plan, chain sampling plan, TNT (Tightened-Normal-Tightened) plan etc., can be extended to these three-class attributes sampling plans.

The International Commission on Microbiological Specifications for Foods (ICMSF) suggested the detail guidelines (ICMSF, 1986, 1994, 2002) insisting the usage of acceptance sampling plans with microbiological criteria for foods in international trade and developed a scheme for selection of cases and attributes plans in order to establish criteria for food lot acceptance. Dependent on the conditions under which food is expected to be handled and consumed in the usual course of events and on the degree of concern relative to food utility and health hazard, 15 cases have been distinguished by ICMSF that require increasing stringency of acceptance sampling especially in the area of three-class attributes sampling plans. Thus, acceptance sampling is ever-needed methodology for the production field and much of research and developments required in this area.

"If you want a method or system used, keep it simple and user friendly".

- Dodge

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