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SELECTION OF THREE STAGE CHAIN SAMPLING PLAN OF TYPE (0, 1, 2) WITH REPETITIVE GROUP SAMPLING PLAN USING TRIGONOMETRIC RATIO

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Abstract: Acceptance Sampling plans are the practical tools for quality assurance applications involving product quality control. Using Trigonometric ratio, one can get a better plan which has an OC curve similar to ideal OC curve. The approach of trigonometric ratio method by considering the tangent of the angle between the lines joining the points $(AQL, 1-\alpha)(LQL, \beta)$. This paper introduces a procedure and tables for the selection of Three Stage Chain Sampling Plan $(0, 1, 2)$ with Repetitive group sampling plan using Trigonometric ratio, involving producers and Consumers quality levels. A table and methods are given for the construction of plans indexed by using trigonometric ratio.

Keywords and Phrases: Acceptable Quality Level, Indifference Quality Level, Limiting Quality Level and Three Stage Chain Sampling Plan, Minimum Angle method, Repetitive Group Sampling plan.
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1. Introduction

Acceptance sampling is a statistical tool used to make decisions concerning whether or not a lot of products should be released for consumer use. An acceptance sampling plan is a statement regarding the required sample size for product inspection and the associated acceptance or rejection criteria for sentencing individual lots. The criteria used for measuring the performance of an acceptance