

# ABSTRACT

In this thesis a Modified Murthy Estimator of population total has been developed for use with unequal probability sampling. It is denoted by  $t_{MM}$ . Before that a survey has been done of sampling literature along with some of the popular unequal probability-sampling estimators. The empirical study has also been carried out to check the performance of the new estimator. Relative efficiency of these estimators has also been obtained relative to the Modified Murthy Estimator.

General conclusions have been drawn from that empirical study. It has been found that the  $t_{MM}$  estimator performs better for populations having negative skewness and negative kurtosis.