ABSTRACT

This research aims to develop an exponential estimator for estimating the population mean under ranked set sampling in the presence of non-response. This developed estimator is used to estimate non-response in auxiliary variable. Efficiency of the derived estimator is compared with the other existing estimator through mean square error, where mean square errors are derived up to first order term. Biases of the estimators up to second order are also obtained. Mathematical comparison is also made and it's proved that our proposed estimator is better than existing estimators. Family of the proposed estimator also derived. Numerical comparison is also done having low, moderate and high correlation.