

MT-230 Statistics & Probability

Statistics:

Introduction, types of data & variables, presentation to data, tabulation, frequency distribution, graphical representation, stem & leaf plot, simple & multiple bar diagrams, pie-diagram, histogram, frequency polygon, frequency curves.

Measures of central tendency and dispersion:

Statistical averages, median, mode, percentiles, quartiles, range, moments, skewness & kurtosis, quartile deviation, mean deviation, standard deviation, variance & its coefficient, practical significance in related problems.

Probability:

Basic concepts, permutation & combination, definitions of probability, laws of probability, conditional probability, Bayes' rule, related problems in practical significance,

Random variables:

Introduction, discrete & continuous random variables, random sequences and transformations, probability mass function, probability density function, distribution function, mathematical expectations, Moment generating function (M.G.F.).

Probability distributions:

Introduction, discrete probability distributions, binomial, poisson, hyper geometric & negative binomial distributions, continuous probability distribution, uniform, exponential, gamma & normal distributions & their practical significance.

Index Number

Introduction, simple and weighted index number, consumer price index number, use of index number.