SYLLABUS

Mathematics

Arithmetic, geometric and harmonic progressions. Trigonometry. Two dimensional coordinate geometry: Straight lines, circles, parabolas, ellipses and hyperbolas.

Elementary set theory. Functions and relations. Elementary combinatorics: Permutations and combinations, Binomial and multinomial theorem.

Theory of equations.

Complex numbers and De Moivre's theorem.


Statistics and Probability


Sampling distributions of statistics. Statement and applications of Weak law of large numbers and Central limit theorem.


Basic experimental designs such as CRD, RBD, LSD and their analyses. Elements of factorial designs. Conventional sampling techniques (SRSWR/SRSWOR) including stratification. Ratio and regression methods of estimation.