SNU Chennai Entrance Examination 2024 (SNUCEE 2024)
Mathematics Syllabus

Sets –sets-relations & functions.

Trigonometry – Trigonometric functions, Trigonometric identities, Trigonometric equations, Properties of triangles, Inverse trigonometric functions.

Combinatorics – Permutation, Combinations, Principles of counting and Mathematical induction

Binomial Theorem – binomial theorem - Sequence and Series.

Basic algebra – Quadratic functions, polynomial functions, and linear Inequalities.

Two-dimensional Analytical Geometry – Straight Lines, tangent and normal, circles, ellipse, parabola, hyperbola – properties.

Vector algebra – Vector product & scalar product, the product of three vectors, skew lines, planes.

Mathematical Logic – Logic, Contradiction, and contrapositive.

Complex numbers -complex form– conjugate, modulus – polar form.

Differential Calculus – Limits and Continuity, Differentiability, Lagrange's Mean Value Theorem, Rolle's Theorem, Maxima and Minima, Euler's Theorem.

Integral Calculus – Evaluation- substitution, partial fractions, integration by parts. Definite integrals as a limit of a sum. Properties of definite integrals- Applications of integrals in finding area.

Matrices & determinants – matrices-types of matrices-Operations-Determinants – properties of determinants- consistency & inconsistency, solution of a system of equations – an inverse of a matrix-rank.

Probability – Probability Basics – conditional Probability – total probability – Baye's theorem – Random variable – Bernoulli Distribution and Binomial Distribution.

Differential equations – order, degree - Solution of a homogenous equation of first order and first degree- Method of separation of variables.

MATHEMATICS SYLLABUS – B.Com., B.Com. (PA) & B.Sc. Economics (DS)

Sets –sets-relations & functions

Basic algebra – Quadratic functions, polynomial functions, and linear Inequalities.

Matrices & determinants, solution of the system of equations

Algebra- Permutation and Combination, Binomial Theorem & Mathematical Induction.

Analytical Geometry - Straight Lines, Circles, and conics.

Trigonometry – Ratios, Compounded angles, Inverse trigonometric functions.

Differential Calculus – Limits and Continuity, Differential techniques, Maxima, and Minima

Linear Programming – Formulation.

Probability and Statistics – Probability Basics – conditional Probability – total probability – Baye's theorem – Random variable – Bernoulli Distribution and Binomial Distribution, Measure of Central Tendency, Measure of Dispersion.

Integral Calculus – Evaluation- substitution, partial fractions, integration by parts, Definite integrals as a limit of a sum. Properties of definite integrals- Applications of integrals in finding area.

Differential equations – order, degree - Solution of the homogenous equation of first order and first degree, method of separation of variables.