

B.Sc. Other than Mathematics (Multidisciplinary Course)

SEMESTER-III

Course Code: MATH-MD-T-03

Course title: Basic Mathematics

Session: 2025-2026

<u>Semester – III</u>			
Name of the teacher	Unit	Subject	Classes
Md. MeezanurRahaman	3	Theory of Equations: <ul style="list-style-type: none">• Introduction and definition of equation. Types of equations.• Relation between roots and coefficients. Descartes’s rule of signs.• Linear and quadratic equations and their solution.Nature of the roots of quadratic equations.	10
Dr. Sarifuddin	6	<ul style="list-style-type: none">• Measures of Central Tendency: mean, weighted mean, median, mode.• Measures of Dispersion: range, mean deviation, standard deviation, coefficient of variation, moments, skewness and kurtosis.	10
Babulal Tudu	4	Matrix & Determinant: <ul style="list-style-type: none">• Definition of a Matrix. Types of Matrices. Elementary operations on Matrices.• Determinant of a square matrix (up to third order). Properties of determinants. Cofactors and minor of a determinant.• Transpose and Adjoint of a matrix. Symmetric and Skew Symmetric Matrices.• Inverse of a matrix. Solution of system of linear equations (up to third order) using matrix inversion method and Cramer’s Rule.	10
Ariful Islam	2	Complex Numbers: <ul style="list-style-type: none">• Polar representation of complex numbers.• De Moivre’s theorem (without proof) for rational indices and their applications.	5

<p style="text-align: center;">Gaurab Mitra</p>	<p style="text-align: center;">1</p>	<p>Set Theory:</p> <ul style="list-style-type: none"> • Introduction to sets and their representations. The empty set, finite and infinite sets, equal sets, subsets, power set, and Universal set. • Venn Diagrams, operations on sets, complement of a set, problems on union and intersection of sets. 	<p style="text-align: center;">5</p>
<p style="text-align: center;">Bilkish Khatun</p>	<p style="text-align: center;">5</p>	<ul style="list-style-type: none"> • Definition and scope of statistics, concepts of statistical population and sample. • Data: qualitative and quantitative, discrete and continuous data types, primary and secondary data. • Presentation of data: tabular and graphical. • Frequency distribution, cumulative frequency distribution and their graphical representations: histogram, frequency polygon, frequency curve, and O-gives. 	<p style="text-align: center;">5</p>