

LESSON PLAN (Aug-Dec 2025)**Name of Teacher – Dr Nishu Gupta Subject: - Mathematics****Paper – Quantitative Aptitude (SEC)****Class – BA/BSC 3rd Sem****Session: - 2025-2026 (Odd Sem.)**

Weeks With Months	Contents
01/08/2025-02/08/2025	Linear Equations,
04/08/2025-09/08/2025	Quadratic equations,
11/08/2025-16/08/2025	System of algebraic equations in two variables and their applications in simple problems: Problems on ages,
18/08/2025-23/08/2025	Clocks.
25/08/2025-30/08/2025	Time and distance: Problems based on trains,
01/09/2025-06/09/2025	Boats and Streams, Pipes and Cistern.
08/09/2025-13/09/2025	Work and time: Problems on work and time,
15/09/2025-20/09/2025	Work and wages.
22/09/2025-27/09/2025	Simple interest, Compound Interest, Partnership
29/09/2025-04/10/2025	Basic idea of set theory to solve practical problems.
06/10/2025-11/10/2025	Trigonometric ratios and identities,
13/10/2025-18/10/2025	Height and distance.
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Basic idea of Permutations and Combinations.
03/11/2025-08/11/2025	Events and sample space, Probability.
10/11/2025-15/11/2025	Data interpretation: Raw and grouped data, Bar Graph,
17/11/2025-22/11/2025	Pie Chart, Mean, Median and Mode.
24/11/2025-29/11/2025	Revision and Mid Term Exam
01/12/2025	Revision



LESSON PLAN (Aug-Dec 2025)

Name of Teacher – Dr Nishu Gupta Subject: - Mathematics
 Paper – Reasoning (VOC)
 Class – BA/BSC 5th Sem

Session: - 2025-2026 (Odd Sem.)

Weeks With Months	Contents
01/08/2025-02/08/2025	Verbal Reasoning: Series Completion, Number series,
04/08/2025-09/08/2025	Letter Series, Alpha numeric series, Wrong Letter Series,
11/08/2025-16/08/2025	Repeat Series, Wrong Number Series,
18/08/2025-23/08/2025	Number Analogy, Word Analogy.
25/08/2025-30/08/2025	Coding and Decoding: Letter Coding,
01/09/2025-06/09/2025	Number coding, Matrix coding,
08/09/2025-13/09/2025	Place arrangement, Direction sense,
15/09/2025-20/09/2025	Family-based puzzles; Blood Relationships.
22/09/2025-27/09/2025	Arithmetic reasoning,
29/09/2025-04/10/2025	Venn diagrams,
06/10/2025-11/10/2025	Logical diagrams,
13/10/2025-18/10/2025	Symbol Substitution.
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Non-verbal Reasoning: Choosing the odd figure,
03/11/2025-08/11/2025	Word Analogy,
10/11/2025-15/11/2025	Number Analogy, Water Images,
17/11/2025-22/11/2025	Mirror Images.
24/11/2025-29/11/2025	Revision and Mid Term Exam
01/12/2025	Revision

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LESSON PLAN (Aug-Dec 2025)**Name of Teacher – Dr Nishu Gupta Subject: - Mathematics****Paper – Business Mathematics (Minor)****Class – Bcom 1st Sem****Session: - 2025-2026 (Odd Sem.)**

Weeks With Months	Contents
01/08/2025-02/08/2025	Set Theory: Representation of sets, equivalent sets,
04/08/2025-09/08/2025	power set, complement of a set. Venn Diagrams:
11/08/2025-16/08/2025	Union and intersection of sets, De-Morgan's laws;
18/08/2025-23/08/2025	Logical statements and truth tables.
25/08/2025-30/08/2025	Logarithms: Laws of operation,
01/09/2025-06/09/2025	log tables;
08/09/2025-13/09/2025	Arithmetic progression
15/09/2025-20/09/2025	Geometric progression
22/09/2025-27/09/2025	Matrices and Determinants: Definition of a matrix, order, equality, types of matrices; Determinant of a square matrix (upto 3x 3 order):
29/09/2025-04/10/2025	Operations on matrices: Addition, multiplication and multiplication with a scalar and their simple properties.
06/10/2025-11/10/2025	Properties of determinants, minors, co-factors and applications of determinants in finding the area of triangle,
13/10/2025-18/10/2025	adjoint and inverse of a square matrix, solutions of a system of linear equations by examples.
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Compound interest and annuities: Different types of interest rates,
03/11/2025-08/11/2025	types of annuities, present value and amount of an annuity (including the case of continuous compounding),
10/11/2025-15/11/2025	valuation of simple loans and debentures,
17/11/2025-22/11/2025	problems related to sinking funds.
24/11/2025-29/11/2025	Revision and Mid Term Exam
01/12/2025	Revision

LESSON PLAN (Aug-Dec 2025)

Name of Teacher – Dr Nishu Gupta Subject: - Mathematics

Paper – Differential Equations (Major)

Class – BA/BSC 3rd Sem

Session: - 2025-2026 (Odd Sem.)

Weeks With Months	Contents
01/08/2025-02/08/2025	Basic concepts and genesis of ordinary differential equations, Order and degree of a differential equation,
04/08/2025-09/08/2025	Solutions of differential equations of first order and first degree,
11/08/2025-16/08/2025	Exact differential equations, Integrating factor, First order higher degree equations solvable for x, y and p, Lagrange's equations,
18/08/2025-23/08/2025	Clairaut's form and singular solutions. Orthogonal trajectories of one-parameter families of curves in a plane.
25/08/2025-30/08/2025	Solutions of linear ordinary differential equations with constant coefficients, linear non-homogeneous differential equations.
01/09/2025-06/09/2025	Linear differential equation of second order with variable coefficients.
08/09/2025-13/09/2025	Method of reduction of order, method of undetermined coefficients,
15/09/2025-20/09/2025	method of variation of parameters. Cauchy-Euler equation.
22/09/2025-27/09/2025	Solution of simultaneous differential equations, total differential equations.
29/09/2025-04/10/2025	Genesis of Partial differential equations (PDE), Concept of linear and non linear PDEs.
06/10/2025-11/10/2025	Complete solution, general solution and singular solution of a PDE.
13/10/2025-18/10/2025	Linear PDE of first order. Lagrange's method for PDEs of the form: $P(x, y, z) p + Q(x, y, z) q = R(x, y, z)$, where $p = \partial z / \partial x$ and $q = \partial z / \partial y$.
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Integral surfaces passing through a given curve. Surfaces orthogonal to a given system of surfaces.
03/11/2025-08/11/2025	Compatible systems of first order equations.
10/11/2025-15/11/2025	Charpit's method, Special types of first order PDEs, Jacobi's method.
17/11/2025-22/11/2025	Second Order Partial Differential Equations with Constant Coefficients.
24/11/2025-29/11/2025	Revision and Mid Term Exam
01/12/2025	Revision

LESSON PLAN (Aug-Dec 2025)**Name of Teacher – Ms. Meena****Subject: - Mathematics****Paper – Calculus****Class –BA/BSC 1st Sem****Session: - 2025-2026 (Odd Sem.)**

Weeks With Months	Contents
01/08/2025-02/08/2025	Basics
04/08/2025-09/08/2025	Unit-1, Limit and continuity
11/08/2025-16/08/2025	Types of discontinuity and differentiability
18/08/2025-23/08/2025	Successive differentiation of functions
25/08/2025-30/08/2025	Leibnitz theorem, General theorems on differentiable functions and expansions
01/09/2025-06/09/2025	Taylor's theorem with Lagrange's form and Cauchy's form of remainder after n terms
08/09/2025-13/09/2025	Maclaurin's form and infinite series
15/09/2025-20/09/2025	Assignment-1, Unit-2 Asymptotes parallel to coordinates axis and oblique asymptotes,
22/09/2025-27/09/2025	Singular points and point of inflexion, Multiple points
29/09/2025-04/10/2025	Cusps, node and conjugate points
06/10/2025-11/10/2025	Tracing of curves
13/10/2025-18/10/2025	Curvature, Parametric curve, Polar curve and pedal curve
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Assignment- 2, Unit -3 Reduction formulae
03/11/2025-08/11/2025	Rectification, Length of curve
10/11/2025-15/11/2025	Intrinsic equation of curve
17/11/2025-22/11/2025	Test, Unit-4 Quadrature, Sectorial area
24/11/2025-29/11/2025	Area bounded by closed curve in Cartesian, parametric and polar form, Volumes and surfaces of solids of revolution
01/12/2025	Revision

LESSON PLAN (Aug-Dec 2025)

Name of Teacher – Ms. Meena
Paper – Sequences and Series
Session: - 2025-2026 (Odd Sem.)

Subject: - Mathematics
Class – BA/BSC 5th Sem

Weeks With Months	Contents
01/08/2025-02/08/2025	Boundedness of the set of real numbers; least upper bound, greatest lower bound of a set, Archimedean, algebraic and ordered properties in $\mathbb{R}$. The real number system as a complete ordered field.
04/08/2025-09/08/2025	Neighbourhoods, interior points, isolated points, limit points, open sets, closed set Interior of a set, closure of a set in real numbers and their properties
11/08/2025-16/08/2025	Open covers, Compact sets, Bolzano-Weierstrass theorem Assignment: Numerical problems based on Bolzano-Weierstrass theorem.
18/08/2025-23/08/2025	Heine-Borel Theorem and Numerical problems based on it.
25/08/2025-30/08/2025	Revision of Unit-I through Assignments and Tests Sequence: Real Sequences and their convergence,
01/09/2025-06/09/2025	Theorem on limits of sequence, Bounded and monotonic sequences, Assignments: To construct examples of Real Sequences and check their convergence
08/09/2025-13/09/2025	Cauchy's sequence, Cauchy general principle of convergence, Subsequences, Subsequential limits. Revision through Assignments and Tests
15/09/2025-20/09/2025	Infinite series: Convergence and divergence of Infinite Series, Comparison Tests of positive terms Infinite series
22/09/2025-27/09/2025	Cauchy's general principle of Convergence of series.
29/09/2025-04/10/2025	Convergence and divergence of geometric series, Hyper Harmonic series or p-series
06/10/2025-11/10/2025	Raabe's test, Logarithmic test, de Morgan and Bertrand's test
13/10/2025-18/10/2025	D-Alembert's ratio test and Cauchy's n^{th} root test. Test : Proof of theorems on D-Alembert's ratio test and Cauchy's n^{th} root test Assignments: Application of Gauss Test to given positive term series
20/10/2025-25/10/2025	Vacations
27/10/2025-01/11/2025	Infinite series: Gauss Test, Cauchy's integral test, Cauchy's condensation test
03/11/2025-08/11/2025	Alternating series, Leibnitz's test, absolute and conditional convergence, Presentation of Chapter 6 - Arbitrary Series
10/11/2025-15/11/2025	Arbitrary series: Abel's lemma, Abel's test, Dirichlet's test Assignments: Recognition of Different kinds of series previously taught in the class
17/11/2025-22/11/2025	Insertion and removal of parenthesis, rearrangement of terms in a series, Dirichlet's theorem,
24/11/2025-29/11/2025	Riemann's Re-arrangement theorem, Pringsheim's theorem (statement only), Multiplication of series, Cauchy product of series, (definitions and examples only) Convergence of infinite products
01/12/2025	Revision



LESSON PLAN (Aug-Dec 2025)

Name of Teacher – Ms. Meena

Paper – Introductory Mathematics (MDC)

Session: - 2025-2026 (Odd Sem.)

Subject: - Mathematics

Class – BA/BSC 1st Sem

Weeks With Months	Contents
01/08/2025-02/08/2025	Sets and their representations, Empty set, Finite and infinite sets, Subsets, Equal sets, Power sets, Universal set, Union and intersection of sets
04/08/2025-09/08/2025	Difference of two sets, Complement of a set, Venn diagram, De-Morgan's laws and their applications.
11/08/2025-16/08/2025	An introduction to matrices and their types, Operations on matrices, Symmetric and skew-symmetric matrices
18/08/2025-23/08/2025	Minors, Co-factors. Determinant of a square matrix,
25/08/2025-30/08/2025	Adjoint and inverse of a square matrix, Solutions of a system of linear equations up to order 3.
01/09/2025-06/09/2025	Revision of Unit-I through Assignments and Tests Complex numbers, Operations on complex numbers, Modulus and argument of a complex number.
08/09/2025-13/09/2025	Linear inequalities, Algebraic solutions of linear inequalities in two variables and their graphical representation.
15/09/2025-20/09/2025	Quadratic equations, Solution of quadratic equations.
22/09/2025-27/09/2025	Revision of Unit-II through Assignments and Tests
29/09/2025-04/10/2025	Arithmetic progression, Geometric progression, Harmonic progression,
06/10/2025-11/10/2025	Arithmetic mean (A.M.), Geometric mean (G.M.), Harmonic mean (H.M.), Relation between A.M., G.M. and H.M.
13/10/2025-18/10/2025	Doubts and revision of unit III
20/10/2025-25/10/2025	Slope of a line and angle between two lines,
27/10/2025-01/11/2025	Vacations
03/11/2025-08/11/2025	Different forms of equation of a line: Parallel to co-ordinate axes, Point-slope form
10/11/2025-15/11/2025	Different forms of equation of a line : Slope-intercept form, Two-point form, General form
17/11/2025-22/11/2025	Distance of a point from a straight line.
24/11/2025-29/11/2025	Standard form of a circle and its properties. Revision of Unit-IV through Assignments and Tests
01/12/2025	Revision

LESSON PLAN (Aug-Dec 2025)

Name of Teacher – Ms. Meena

Paper – Mathematics for All (MDC)

Session: - 2025-2026 (Odd Sem.)

Subject: -Mathematics

Class – BA/BSC 3rd Sem

Weeks With Months	Contents
01/08/2025-02/08/2025	The concept of a set, Types of sets, Operations on sets, Venn diagram, De-Morgan's laws.
04/08/2025-09/08/2025	The concept of a function, Elementary functions and their graphical representation.
11/08/2025-16/08/2025	Solution of simple quadratic and cubic equations, Solution of simultaneous linear equations up to three variables.
18/08/2025-23/08/2025	Arithmetic progression, Geometric progression
25/08/2025-30/08/2025	Revision of Unit-I through Assignments and Tests
01/09/2025-06/09/2025	The concept of differentiation, differentiation of simple functions, second order differentiation,
08/09/2025-13/09/2025	Maxima and minima of a function,
15/09/2025-20/09/2025	Use of differentiation for solving problems related to real-life situations
22/09/2025-27/09/2025	Integration of simple algebraic, trigonometric and exponential functions.
29/09/2025-04/10/2025	Revision of Unit-II through Assignments and Tests
06/10/2025-11/10/2025	Frequency distribution and cumulative frequency distribution, Diagrammatic and graphical presentation of data
13/10/2025-18/10/2025	Construction of bar, Pie diagrams, Histograms, Frequency polygon, Frequency curve and Ogives. Doubts and revision of unit III
20/10/2025-25/10/2025	Measures of central tendency: Arithmetic mean, Median, Mode, Geometric mean and Harmonic mean for ungrouped and grouped data.
27/10/2025-01/11/2025	Vacations
03/11/2025-08/11/2025	Concept of dispersion, Mean deviation and its coefficient, Range, Variance and its coefficient, Standard deviation.
10/11/2025-15/11/2025	Concept and types of correlation, Methods of finding correlation: Scatter diagram, Karl Pearson's coefficients of correlation, Rank correlation.
17/11/2025-22/11/2025	Linear regression: Principle of least square, Fitting of straight line, Two lines of regression, Regression coefficients.
24/11/2025-29/11/2025	Solution of differential equations of first order and degree one with variable separable.
01/12/2025	Doubts Assignment and revision of unit IV