

LESSON PLAN

August 2025 to November 2025 (up to odd session)

Name of the Assistant/Associate Professor: Mrs. Ravinder

Class and Semester: B.Com. first year (1st Semester)

Course Code: B23-COM-104

Paper: Business Mathematics-I

August 2025:-

Topics:-

Set Theory: Representation of sets, equivalent sets, power set, complement of a set. Venn Diagrams: Union and intersection of sets; valuation of simple loans and debentures, problems related to sinking funds.

Learning Objectives:- Students will be able to learn about Set Theory.

September 2025

Topics :- De-Morgan's laws; Logical statements and truth tables.

Logarithms: Laws of operation, log tables, Arithmetic and geometric progression.

Learning Objective:- Students will be able to solve problems of set theory and A.P. and G.P. progression.

October 2025

Topics:-

Matrices and Determinants: Definition of a matrix, order, equality, types of matrices; Operations on matrices: Addition, multiplication and multiplication with a scalar and their simple properties. Determinant of a square matrix (upto 3×3 order): Properties of determinants, minors, co-factors and applications of determinants in finding the area of triangle, adjoint and inverse of a square matrix, solutions of a system of linear equations by examples

Learning Objective:- Students will be able to learn about Matrices.

November 2025

Topics- Compound interest and annuities: Different types of interest rates, types of annuities, present value and amount of an annuity (including the case of continuous compounding),

Learning Objective:- Students will be able to learn about Compound interest and annuities

Ravinder
3/9/25

LESSON PLAN

August 2025 to November 2025 (up to odd session)

Name of the Assistant/Associate Professor: Mrs. Ravinder

Class and Semester: B.A. second year (3rd Semester)

Course Code: B23-MAT-301

Paper: Differential Equations-1

August 2025 :-

Topics:-

Basic concepts and genesis of ordinary differential equations, Order and degree of a differential equation, Solutions of differential equations of first order and first degree Exact differential equations, Integrating factor, First order higher degree equations solvable for x , y and p , Lagrange's equations, Clairaut's form and singular solutions, Orthogonal trajectories of one-parameter families of curves in a plane.

Learning Objectives:- Students will be able to learn about ordinary differential equations.

September 2025

Topics :- Solutions of linear ordinary differential equations with constant coefficients, linear non-homogeneous differential equations. Linear differential equation of second order with variable coefficients. Method of reduction of order, method of undetermined coefficients, method of variation of parameters. Cauchy-Euler equation

Learning Objective:- Students will be able to solve problems of Exact differential equations and orthogonal Trajectories.

October 2025

Topics:- Solution of simultaneous differential equations, total differential equations, Genesis of Partial differential equations (PDE). Concept of linear and nonlinear PDEs. Complete solution, general solution and singular solution of a PDE. 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 $q = \partial z / \partial y$

Learning Objective:- Students will be able to learn about linear ordinary differential equations

November 2025

Topics- Integral Surfaces through a given curve

Learning Objective:- Students will be able to learn about Partial differential equations

Ravinder
31/12/25

LESSON PLAN

August 2025 to November 2025 (up to odd session)

Name of the Assistant/Associate Professor: Mrs. RAVINDER

Class and Semester: B.A. first year (1st Semester)

Course Code: B-21- VAC-101

Paper: Human Values and Ethics

August 2025:-

Topics:- Understanding the need, content and process for Value Education, Classification of Value Education, understanding Personal Values, Social Values, and Moral Values & Spiritual Values; Nature and need of competency based education; Types of Competencies, partnership building, Core Competencies: communication, teamwork, planning and achieving goals, Functional Competencies: analytical thinking, knowledge sharing and learning, decision making,

Learning Objectives:- Students should be aware of the difference among skills, values and ethics and their respective needs in life.

September 2025

Topics :- Understanding the difference between ideology and values. Understanding Harmony with self, Society and Nature. Meaning and nature of human values; Significance of human values in life; Relation between values and ethics. Relevance of Human values: Integrity, Empathy, Loksangrah, Brahmavihara. Theory of Naya (Jainism), Deontology, Virtue Ethics, Utilitarianism

Learning Objective:- Students will be able to learn meaning and nature of human values;

October 2025

Topics Understanding the relationship among: Self, Identity and Personality. Understanding Integrated Personality – with the three gunas theory of Sankhya, the four Antah-karanas (inner instruments) in Yoga, and Panchkosha (five sheaths) in Upanishad. Approaching comprehensive understanding of well-being and its relation to Happiness.

Learning Objective:- Students will be able to learn about Self, Identity and Personality.

November 2025

Topics- Nature, characteristics and scope of professional ethics; Types of Professional Ethics; Professional Values: Trusteeship, Inclusiveness, Commitment, Sustainability, Accountability, Transparency, Impartiality.

Values for Global Citizenship: Equality, Justice, and Human Dignity.

Learning Objective:- Students will be able to learn about Professional Ethics and Professional Values.

Ravinder
01/9/25

LESSON PLAN
AUGUST 2025 to NOVEMBER 2025

Name of the Assistant/Associate Professor: Mrs. RAVINDER
Class and Semester: B.A. 3rd year (5th Semester)
Subject: Mathematics
Paper: Sequences and Series
Paper Code : B23-MAT -501

August 2025

Topics | Boundedness of the set of real numbers; least upper bound, greatest lower bound of a set, neighborhoods, interior points, isolated points, limit points, open sets, closed set, interior of a set, closure of a set in real numbers and their properties. Bolzano- Weiestrass theorem, Open covers, Compact sets and Heine-Borel Theorem.

September 2025

Topics - Sequence: Real Sequences and their convergence, Theorem on limits of sequence, Bounded and monotonic sequences, Cauchy's sequence, Cauchy general principle of convergence, Subsequences Subsequential limits. Infinite series: Convergence and divergence of Infinite Series, Comparison Tests of positive terms Infinite series, Cauchy's general principle of Convergence of series, Convergence and divergence of geometric series, Hyper Harmonic series or p-series.

First Assignment

October 2025

Topics - Denumerable and Non Denumerable sets Infinite series: D-Alembert's ratio test, Raabe's test, Logarithmic test, de Morgan and Bertrand's test, Cauchy's Nth root test, Gauss Test, Cauchy's integral test, Cauchy's condensation test.

Second Assignment and test

November 2025

Topics- Alternating series, Leibnitz's test, absolute and conditional convergence, Arbitrary series: Abel's lemma, Abel's test, Dirichlet's test, Insertion and removal of parenthesis, rearrangement of terms in a series, Dirichlet's theorem, Riemann's Re-arrangement theorem, Pringsheim's theorem (statement only), Multiplication of series, Cauchy product of series, (definitions and examples only)

Revision of the syllabus.

Ravinder
3/9/25

LESSON PLAN

August 2025 to November 2025 (up to odd session)

Name of the Assistant/Associate Professor: Mrs. Ravinder

Class and Semester: B.A. 3rd year (5th Semester)

Course Code: B23-MAT-507

Paper: Reasoning

August 2025:-

Topics:-

Verbal Reasoning: Series Completion, Number series, Letter Series, Alpha numeric series, Wrong Letter Series, Repeat Series, Wrong Number Series, Number Analogy, Word Analogy.

September 2025

Topics Coding and Decoding: Letter Coding, Number coding, Matrix coding, Place arrangement, Direction sense, Family-based puzzles; Blood Relationships.

Oct 2025

Topics-, Arithmetic reasoning, Venn diagrams, Logical diagrams, Symbol Substitution

Learning Objective:- Students will be able to learn about Airthmatial Reasoning

November 2025 :

Topics Non-verbal Reasoning: Choosing the odd figure, Word Analogy, Number Analogy, Water Images, Mirror Images.

Learning Objective:- Students will able to learn about problems of Non verbal reasoning and Analogy

Ravinder
3/9/25

LESSON PLAN
AUGUST 2025 to DECEMBER 2025

Name of the Assistant/Associate Professor: Mrs. SURKSHIA
Class and Semester: B.A 1st year (1st Semester)

Subject Code : B23-MAT-101
Paper: Calculus

AUGUST -2025

Topics:- Limit of functions, Types of continuity and differentiability of Functions, Successive differentiation of functions in implicit, explicit and parametric form, Leibnitz theorem, Some general theorem on differentiable functions and expansions, Taylor's theorem and infinite series, Indeterminate forms.

Learning Objective:- learn Types of continuity and differentiability of Functions.

SEPTEMBER -2025

Topics - Asymptotes parallel to coordinate axis and oblique asymptotes in Cartesian and polar form Singular points Curvature (radius of curvature for Cartesian curve, parametric curves, polar curves, pedal curves)

Learning Objective:- learn Asymptotes

First Assignment on the topic Types of continuity and differentiability of Functions.

Second Assignment on the topic of asymptotes

OCTOBER- 2025

Topics- Reduction Formulae, Rectification, Length of curves in Cartesian, parametric and polar curves

Learning Objective:- learn the concept of Reduction formula

NOVEMBER-2025

Topics:- Quadrature (area) Sectorial area, Area bounded by closed curves.

Learning Objective:- learn the concept of quadrature.

DECEMBER-2025

Revision of the syllabus.


03/09/2025

LESSON PLAN
AUGUST 2025 to DECEMBER 2025

Name of the Assistant/Associate Professor: Mrs. SURKSHIA
Class and Semester: B.A 2nd year (3rd Semester)

Subject Code : B23-MAT-301 (P)
Paper: Differential Equations-1(P)

AUGUST -2025

Topics:- To attain technical skill of solving differential equations by using built in functions of MAXIMA software..

1. Problems solving for differential equations which are reducible to homogeneous.
2. Problems solving for differential equations which are Exact differential equations.
3. Problems solving for linear differential equations with constant coefficient.
4. Problems solving for linear differential equations with variable coefficient.

Learning Objective:- To attain cognitive and technical skills required for selecting and using relevant methods and techniques to assess the appropriateness of approaches to solving problems associated with the differential equations.

SEPTEMBER -2025

Topics –

5. Problems solving for differential equations by method of variation of parameters.
6. Problems solving for differential equations by method of undetermined coefficients.
7. Problems solving for simultaneous differential equations.
8. Problems solving for different PDEs using Lagrange's method.
9. Problems solving for PDEs with Charpit's method and Jacobi's method.

OCTOBER- 2025

Topics

The following practicals will be done using MAXIMA software

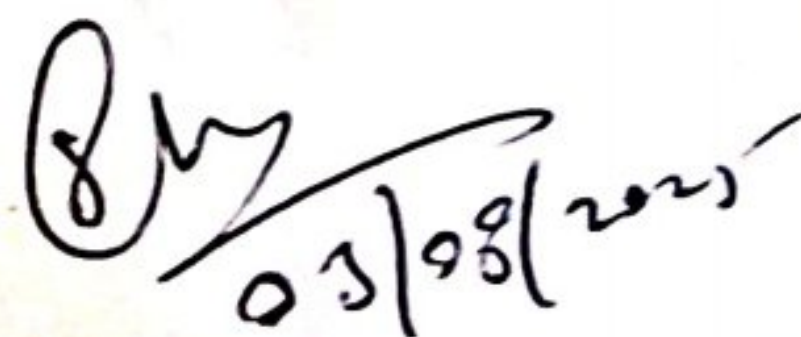
1. Solutions of first and second order differential equations.
2. Plotting of family of solutions of differential equations of first, second and third order.
3. Solution of differential equations using method of variation of parameters.
4. Growth and decay model (exponential case only).
5. Lake pollution model (with constant/seasonal flow and pollution concentration).
6. Density-dependent growth

NOV ENBER, DECEMBER-2025

Topics

7. model. Predatory-prey model (basic Volterra model, with density dependence, effect of DDT, two prey one predator).
8. To find the solutions Linear differential equations of second order using built in functions of MAXIMA To find software.
9. numerical solution of a first order ODE using plotdf built in function of MAXIMA.
10. To find exact solutions of first and second order ODEs using ode2 and ic1/ic2 built in functions of MAXIMA.
11. To find exact solutions of first and second order ODEs using desolve and atvalue built in functions of MAXIMA.

Learning Objective:- To attain technical skill of solving differential equations by using built in


03/08/2025

LESSON PLAN
AUGUST 2025 to DECEMBER 2025

Name of the Assistant/Associate Professor: Mrs. SURKSHA
Class and Semester: B.COM 2nd year (3rd Semester)

Subject Code : B23-SEC-303

Paper: Calculation Skills with Vedic Mathematics-II

AUGUST -2025

Topics:- Multiplication (Quadratic expressions of single variable), Urdhwatirygbhyaam Method, Combined Operations, Division and Factorization: Division (Divisor: Linear expression of single variable), Factorization (Quadratic and cubic polynomials of two variables), Factorization of quadratic polynomial containing more than two variables.

Learning Objective:- Gain the knowledge to perform multiplication, division, HCF, LCM and factorization of polynomials using Vedic Sutras.

SEPTEMBER -2025

Topics - Solution of Simple Equation, solution of linear equation in one variable, solution of linear equations in two variables, solution of quadratic equations, & Solution of simultaneous equations.

Learning Objective:- Have the procedural knowledge to apply Vedic sutras to solve linear equations, quadratic equations and simultaneous equations.

First Assignment on the topic Urdhwatirygbhyaam Method,.

Second Assignment on the topic of quadratic equations and simultaneous equations.

OCTOBER- 2025

Topics LCM and HCF of polynomials. Concept of Baudhayana Number (BN), BN of an angle, Multiplication of a constant in a BN, BN of complementary angles, BN of sum and difference ($\pm B$) of an angle, BN of halfangle..

Learning Objective:- Have the knowledge and understanding of the concepts of Vedic Geometry and Trigonometry.

NOVEMBER-2025

Topics Pythagorean triple, Trigonometric relation for half, twice and thrice of angle, sum, difference of angles using triples Vedic Geometry: Angle between two lines, perpendicular distance of line from a point..

Learning Objective:- Attains the cognitive and technical skills to use Vedic sutras and upsutras for solving Algebra, Calculus and Geometry problems with speed and accuracy.

DECEMBER-2025

Revision of the syllabus.

[Handwritten signature]
25/10/2025

LESSON PLAN

AUGUST 2025 to DECEMBER 2025

Name of the Assistant/Associate Professor: Mrs. SURKSHIA

Class and Semester: B.A/B.COM 1st year (1st Semester)

Subject Code : B23-SEC-103

Paper: Basic IT Tools

AUGUST -2025

Topics:- Introduction to Computer: Computer and Latest IT gadgets, Evolution of Computers & its applications, Basics of Hardware and Software, Application Software, Systems Software, Utility Software, Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Mobile Apps, Introduction to Operating System,

Learning Objective:- learn Functions of the computer

SEPTEMBER -2025

Topics - Functions of the Operating system, Operating Systems for Desktop and Laptop, Operating Systems for Mobile Phone and Tablets, User Interface for Desktop and Laptop, Task Bar, Icons & shortcuts, Running an Application, Operating System Simple Setting, Changing System Date and Time, Changing Display Properties, To Add or Remove Program and Features, Adding, Removing & Sharing, Printers, File and Folder Management, Introduction to Internet and World Wide Web,

Learning Objective:- learn about Internet and World Wide Web

First Assignment on the topic Functions of the computer.

Second Assignment on the topic of Basic of Computer Networks.

OCTOBER- 2025

Topics- Basic of Computer Networks, Local Area Network (LAN), Wide Area Network (WAN), Network Topology, Internet, Applications of Internet, Website Address and URL, Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.), Popular Search Engines, Searching on the Internet.

Learning Objective:- learn the concept of Computer Networks

NOV ENBER-2025

Topics:- E-mail: Using E-mails, Opening Email account, Mailbox: Inbox and Outbox, Creating and Sending a new Email, replying to an E-mail message, forwarding an E-mail message, searching emails, Attaching files with email, Email Signature. Social Networking: Facebook, Twitter, LinkedIn, Instagram, Instant Messaging (WhatsApp, Facebook Messenger, Telegram), Introduction to Blogs, Digital Locker.

Learning Objective:- learn the concept of E-Mails and social media

DECEMBER-2025

Revision of the syllabus.

Pls
05/08/2025