

LESSON PLAN OF MATHEMATICS

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:- B.A. IVth Sem

Subject:- MECHANICS

Teacher name:- MS. Meenesh kumari

	LESSON PLAN OF MECHANICS
February	
	Introduction to Syllabus and Pattern
	Composition and resolution of forces
	Resultant of two parallel forces and their applications
March	
	Moments and couples
	Analytic conditions of equilibrium of coplanar forces
April	
	Velocity and acceleration along radial, transverse, tangential and normal direction
	Simple harmonic motion and elastic string

May	Newton's law of motion
	Work, Power and Energy

LESSON PLAN OF PHYSICS

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:B.A.1st Sem

Subject:- Algebra

Teacher name:- Meenesh kumari

	LESSON PLAN OF Algebra
August :	Symmetric ,Skew Symmetric,Hermitian and Skew Hermitian matrices, Elementary operations on matrices, Rank of a matrix,Inverse of a matrix
September:	Row and Column Rank of a matrix, Eigen values, Eigen vectors and characteristics equations of a matrix, Cayley Hamilton theorem and itit's use in finding inverse of a matrix.
October:	Application of matrices to a system of linear equations, Theorems on consistency of a system of linear equations, Unitary and Orthogonal Matrices , Bilinear and Quadratic forms
November:	Relations between the roots and coefficients of general polynomials equations in one variable ,sol solution of polynomial equation having condition on roots , common roots and multiple roots.

December:	Nature of the roots of an equation, Descarte's rule of signs, Solutions of cubic equation, Cardan's method, Biquadratic equation and their solution.

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Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:- B.A.3rd Sem

Subject:- Differential equations

Teacher name:- MS. Meenesh kumari

	LESSON PLAN OF Differential equations
August:	
	Introduction to Syllabus and Pattern
	Geometrical meaning of a differential equation, exact differential equations
September:	Integral factors,
	Reduction to exact diff. equations
	First order higher degree equations solutions,
	Lagrange equations, Clairaut equations
	Singular solutions
	Orthogonal trajectories
October:	
	Linear differential equations with constant coefficients,
	Solution by variation of parameter
	Homogeneous linear ordinary differential equations
	Partial differential equations introduction
November:	Solutions of linear and non linear partial differential equations of 1 st

LESSON PLAN OF PHYSICS

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:- B.A.6th

Subject:- Special function and Integral Transforms

Teacher name:- Meenesh kumari

	LESSON PLAN Special function and Integral Transforms
February	Power series method, Def Definition of Beta and
	Gamma functions,, Bessel equation and itit's
	solutions, Orthogonality of Bessel function,
	Legendr Legendry and Hermite differential equations,
	Rodrigue's Formula for Lengendre polynomials
March	Laplace Transforms , Shifitin Shifting theorems , Laplace
	Transforms of derivatives and intergals, Convolution
	Theorems, Inverse Laplace Transforms, Inverse Laplace
	transforms of derivatives and integrals ,
April	Linearity property, Shifting, Modulation, Convolution theorem,
	Fourier transform of derivatives , Relations between
	fourier transform and Laplace transform ,

	Parseval's identify for fourier transform ,

LESSON PLAN OF MATHEMATICS

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:- B.A.I 2nd Sem

Subject:- Vector Calculus

Teacher name:- Meenesh kumari

	LESSON PLAN OF VECTOR CALCULUS
February	
	Gradient of a scalar point function, geometrical interpretation of grad, character of of div gradient as a point function. Divergence and curl of vector point function, characters of divduct and curl as point function, examples. Gradient, divergence and curl of sums and product and their related vector identities. Laplacian operator.
March	Orthogonal curvilinear co-ordinates. Conditions for orthogonality. Fundamental triad of ter mutually orthogonal unit vectors, Gradient, divergence, curl and laplacian operators in terms of orthogonal curvilinear co-ordinates, cylindrical co-ordinates, spherical co-ordinates.
April	Vector integration, line integral, surface integral, volume integral Theorem of Gauss, Green, Stokes and problems based on these.

LESSON PLAN OF PHYSICS

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2023-24

Semester:- B.Com. 2nd

Subject:- Business Mathematics

Teacher name:- Meenesh kumari

	LESSON PLAN
February	
	Introduction to Syllabus and Pattern
	Algebra of matrices ,Basic operations on matrixs, Transpose of matrix, Symmetric and Skew symmetric ,
	Determinants ,Minors and co--factors,properties of Determinants.
March	Matrices,Adjoint of a matrix,Inverse of a square matrix,Application of Matrices to simple business and economic problems.
	Compound interest: Simple interest, General formulae for Determination of compound interest,continuous compounding interest
	problems on effective of interest, Depreciation

	and population,
April	Differentiation, derivative of 1st principle, Differentiation of product of two functions, Derivative of functions of a function (chain Rule) and Exponential and logarithmic
	Differentiation in case of Parametric function, derivative of higher order,
	Permutations Differentiation between permutation and combination, Permutation When all the object are distinct, Restricted permutation
	permutation with repetitions, some theorems on combination,
May	Sequence and Series, Arithmetic progression, Sum of n terms of an A.P.
	Arithmetic Mean , Sum of n Arithmetic means between two Number.
	Geometric Progression, Sum of first n terms G.P.SP. Sum of G.P. up to infinity.