

ANNUAL CURRICULAR PLAN

Name of the College : Govt Degree College, Nirmooz
 Name of the Lecturer : D. Lakshmi

(Lecturer-wise) :
 Name of the Department : Mathematics

Class : IIIrd Sem Year : 2020-21 Paper : Linear Algebra

Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Input/ Value Addition Provided / taught	Curricular Activity			Co-Curricular Activity			Remarks			
						Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted		Whether conducted	If not, alternate date	
1.	September	1	4	Introduction to vector spaces	Differences bet vectors and Scalars and Transformation material provided										
		2	5	Subspaces, Null spaces		class room	19	Yes	-	Assign-ments given	3	Yes			
		3	5	Column spaces and											
		4	5	Linear Transformations											
		5	3	Kernelly Independent sets											
2.	October	1	2	Bases - Coordinate systems	Problems on dimension and Basis provided.										
		2	5	The Dimension of a Vector space, Rank			10	Yes	-	More problems given	2	Yes			
		3	5	Change of Basis											
		4	5	Eigen values and Eigen vectors -											
		5	5	The characteristic Equation - Diagonalization - Eigen vectors		Problems on Eigen values and vectors provided.		18	Yes	-	More problems given	2	Yes		
3.	Nov	1	5	Linear Transformation -	Material on orthogonality and problems provided.										
		2	5	Orthogonality and											
		3	5	Least Squares											
		4	5	Inner Product, Length and											
		5	5	Orthogonality - Orthogonal sets											
4	Dec	1	4												
		2	5												
		3	5												
		4	5												

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 of years

Sl. No.	Subject	Week	Hours available	Syllabus topics	Additional topics Value Addition Provided / sample	Activity conducted		Formative Assessment		Summative Assessment		Remarks
						Activity conducted	Hours allotted	Activity conducted	Hours allotted	Activity conducted	Hours allotted	
1	Self	1	1	Introduction to Real Analysis	Problems on Limits of a Sequence and Series provided	done	20	Conducted	20	Conducted	Yes	Problems on Limits of a Sequence and Series provided
2	Self	2	2	Continuous functions, topology of real functions, Uniform continuity and kinds of functions	Continuity problems provided	done	20	Conducted	20	Conducted	Yes	Problems on Continuity provided
3	Self	3	3	Differentiation: Basic properties of the derivative, the Mean Value Theorem, Taylor's theorem.	Problems in Mean Value Theorem and L-Hospital's rule provided	done	20	Conducted	20	Conducted	Yes	Problems in Mean Value Theorem and L-Hospital's rule provided
4	Self	4	4	The Riemann integral	Partition of interval and problems on integration provided	done	20	Conducted	20	Conducted	Yes	Partition of interval and problems on integration provided
5	Self	5	5	Properties of the Riemann integral, Fundamental Theorem of calculus		done	20	Conducted	20	Conducted	Yes	
6	Self	6	6	Theorem of calculus		done	20	Conducted	20	Conducted	Yes	
7	Self	7	7	Riemann integration		done	20	Conducted	20	Conducted	Yes	

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Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Input/ Value Addition Provided / taught	Curricular Activity				Co-Curricular Activity				Remarks
						Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
1.	December	2	5	Practical Differentiation, Functions of 2 variables, Nbd of a pt (a,b), Homogeneous functions, Partial derivative (see sep. of a function of 2 variables, Hqn. function & variables, Diff. of composite functions, Implicit functions, Taylor's theorem, Maxima and Minima of function of two variables, Lagrange's method of undetermined multipliers.	Formulae of Differentiation and partial Differentiation provided.	18	Yes	-	Problems of all formulae in partial diff.	3	Yes	-		
		3	6			Conducted	-	Assig. ment given	3	Yes	Conducted			
		4	6			Conducted	-	Problems given	2	Yes	Conducted			
		5	4			Conducted	-	Problems given	2	Yes	Conducted			
		5	4			Conducted	-	Problems given	2	Yes	Conducted			
2.	January	2	3	Def. of radius and radius of curvature, length of arc, Newtonian method, centre of curvature, chord of curvature, Evolutes and involutes - Properties of the evolute, Envelopes.	Curvature and Envelopes problems provided.	13	Yes	-	Problems given	2	Yes	-		
		3	4			Conducted	-	Problems given	2	Yes	Conducted			
		4	4			Conducted	-	Problems given	2	Yes	Conducted			
3.	February	1	5	Rectification, Expression for the lengths of arcs, Volumes and surface of Revolution, volume obtained by revolving about any line, Area of the surface Pappus Theorem.	Formulae of volumes and surfaces provided.	18	Yes	-	Assign ment given	2	Yes	-		
		2	2			Conducted	-	Assign ment given	2	Yes	Conducted			
		3	4			Conducted	-	Assign ment given	2	Yes	Conducted			
		4	6			Conducted	-	Assign ment given	2	Yes	Conducted			
		5	2			Conducted	-	Assign ment given	2	Yes	Conducted			
4	March	1	5	Rectification, Expression for the lengths of arcs, Volumes and surface of Revolution, volume obtained by revolving about any line, Area of the surface Pappus Theorem.	Formulae of volumes and surfaces provided.	1	Yes	-	Assign ment given	2	Yes	-		
		2	4			Conducted	-	Assign ment given	2	Yes	Conducted			
April	April	1	1	Rectification, Expression for the lengths of arcs, Volumes and surface of Revolution, volume obtained by revolving about any line, Area of the surface Pappus Theorem.	Formulae of volumes and surfaces provided.	1	Yes	-	Assign ment given	2	Yes	-		
		2	2			Conducted	-	Assign ment given	2	Yes	Conducted			

ANNUAL CURRICULAR PLAN

(Lecturer-wise) :

Name of the Department: Mathematics

Class: IIIrd Sem - V Year: 2020-2021 Paper: Analytical Solid Geometry

Name of the College: Gout Degree College, Armoor
 Name of the Lecturer: D. Latha

Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Input/ Value Addition Provided / taught	Curricular Activity				Co-Curricular Activity				Remarks	
						Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date		
1.	September	1	4	Sphere Definition - The sphere through four pts Equation of a circle - Intersection of a sphere and a line Equation of a tangent Plane	Equations and formulae of a circle in 2D related to sphere in 3D inputs given	Class room teaching	20	Yes	Conducted	-	Comparison of 2D & 3D equations of sphere	2	Yes	Conducted	
		2	5												
		3	5												
		4	5												
		5	3												
2.	October	1	2	Angle of intersection of two spheres - Radical plane. Cones and cylinders defn - Condition that General eq ⁿ of 2nd degree represents a cone - cone and a plane through its vertex.	Problems on spheres and cone provided	"	10	Yes	Conducted	-	Formulae of cones and cylinders	2	Yes	Conducted	
		2	5												
		3	5												
		4	5												
		5	5												
3.	November	1	5	Intersection of a line with a cone. The right circular cone - The cylinder - The right circular cylinder	Problems on cone & cylinder provided	"	18	Yes	Conducted	-	Assignments conducted	2	Yes	Conducted	
		2	5												
		3	5												
		4	5												
4.	December	1	4	The Conicoid - The general equation of the 2nd degree - Intersection of a line with a conicoid - Plane of contact Enveloping cone and cylinder.	Problems in conicoid, Enveloping cone and cylinder provided.	"	18	Yes	Conducted	-	Group discussion on formulae of conicoids	3	Yes	Conducted	
		2	5												
		3	5												
		4	5												

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Name of the College: Govt. Degree College, Armoor

Name of the Lecturer: D. Latha

(Lecturer-wise) :
Name of the Department: Mathematics

Class: IIIrd Sem - VI Year : 2020-21

Paper: Numerical Analysis

Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Input Value Addition Provided / taught	Curricular Activity					Co-Curricular Activity			Remarks	
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date		
1	Feb	I II III IV	5 4 3 4	Introduction to Numerical Analysis Picson Method - fixed point Iteration - Newton's Method and its Extensions.	Inputs of usage of Scientific calculator.	Yes	13	Yes	Conducted	-	Group discussion on Scientific calculator.	3	Yes	Conducted	
2	March	I II III IV	4 2 4 5	Error Analysis for Iterative Methods, zeros of polynomials and Muller's method Interpolation and Polynomial Approximation: Interpolation and the Lagrange polynomial, Data approximation and Neville's Method.	Rounding off numbers, errors related problems.	Yes	13	Yes	Conducted	-	Problems	2	Yes	Conducted	
3	April	I II III IV	2 4 2 3	Divided differences - Hermite Interpolation - Cubic spline interpolation - Numerical Differentiation and Integration: Numerical Differentiation - Richardson's Extrapolation.	Problems for differences and Integration provided.	Yes	12	Yes	Conducted	-	Formulae chart	2	Yes	Conducted	
4	May	I II III IV	4 3 3 2	Elements of Numerical Integration - Composite Numerical Integration - Romberg Integration - Adaptive Quadrature Methods - Gaussian Quadrature.	old question papers and their solution	Yes	10	Yes	Conducted	-	Assignments given.	2	Yes	Conducted	

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Name of the College : Govt Degree College, Arsmooz
 Name of the Lecturer : D. Lakshmi

Lecturer-wise :

Name of the Department : Mathematics

Class : IIIrd Sem. W Year : 2020-21

Paper : Vector Calculus

Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Topics Value Added / Assignments Provided / Assignments	Curricular Activity				Co-Curricular Activity				Remarks
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
1.	Feb	I II III IV	5 4 3 4	Introduction to Vectors calculus - Work done against a force - Evaluation of line integrals - conservative vector field.	Definitions of work, force done by a particle are provided.	-	13	Yes	-	Assignments given	3	Yes	-	
2.	March	I II III IV	4 2 4 5	Line Integrals - Flows through a pipe - Evaluation of surface integral - Gradient, Divergence and Partial Derivatives and Taylor Series.	Various problems on line Integrals are provided.	-	13	Yes	-	Problems solving	2	Yes	-	
3.	April	I II III IV	2 4 2 3	Gradient of scalar field, conservative fields and potentials - physical applications of the gradient - Divergence of a vector field - physical interpretation of divergence Laplacian of a scalar field.	Gradient, divergence problems are given.	-	12	Yes	-	Assignments	2	Yes	-	
4.	May	I II III IV	4 3 3 2	Curl of a vector field - Relation between curl and rotation - curl and conservative vector field.	Comparison of curl, rotation and conservative field are provided.	-	10	Yes	-	Assignments	2	Yes	-	

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ANNUAL CURRICULAR PLAN

Name of the College: Govt Degree College, Armees

Name of the Lecturer: D. Latha

(Lecturer-wise) :

Name of the Department: Mathematics

Class: Ist Sem - II Year: 2020-21


Curricular Activity

Paper: Differential Equations

Co-Curricular Activity

Remarks

Sl. No.	Month	Week	Hours available	Syllabus topic	Additional Topics Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity				Remarks
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
1.	April	IV	5	Introduction to Diff. eqs. Variable separable Method Homogeneous & non-homo. method problems & solutions	Formulae of Derivatives of Integration.	-	3	Yes	-	charts preparation	2	Yes	-	
2.	May	I	5	Exact diff. eqs and Non-exact diff. eqs Integrating factors	Problems provided	-	3	Yes	-	Problems	2	Yes	-	
		II	4	Non-exact diff. eqs I.Fs & Bernoulli's eqs, Cauchy Euler, Equations solvable for p, x & y.	Question bank provided	-	10	Yes	-	Assign-ments given	3	Yes	-	
		III	5	Linear Diff. equations of Higher order with constant Co-efficient. C.F & P.I		-			-				-	
		IV	4	Linear Diff. equations of Higher order with constant Co-efficient. C.F & P.I		-			-				-	
3.	June	I	4	- do - and Variable Co-efficient.	old question papers provided	-	15	Yes	-	Problems given	4	Yes	-	
		II	5	Method of Undetermined Co-efficient. Method of variation of parameters.		-			-				-	
		III	5	Solution of simultaneous Diff. equations		-			-				-	
		IV	5			-			-				-	


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