

Std :- 12 th
stream : Science

Subject - Mathematics
Division: A,B,C division

Subject Code - 40
Faculty Name :- Mrs .Kulkarni Pradnya
Mr. Bittu Kumar

ACA/DI/15 Rev :00	Teaching Plan (TP)	Academic Year : 2024-25
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Sr.No.	Lesson No.	Name Of The Topic	Planned date of commencing	Planned date of completion	Teaching Aid
1	Logic	1.Statement ,Truth value of Statement ,	2/4/2024	Completed	
		Logical connectives ,simple and compound statement Ex-1.1	3/4/2024	Completed	
		2. Statement pattern, logical equivalence ,Tautology, Contradiction ,Contingency Ex-1.2	4,5/4/2024	Completed	
		3.Quantifiers,Quantified statement ,Duals,	8/4/2024	Completed	White board,
		Negation of compound statement,converse.inverse and contrapositive			Marker
		Of implication. Ex-1.3		Completed	
		4.Algebra of statement Ex-1.4	10,12/4/2024	Completed	
		5. Application of logic to switching circuit.Ex-1.5	13,15/4/2024	Completed	
2	Matrices	1.Elementary Transformation , Inverse of matrix Ex-2.1	16,18,19/4/2024	Completed	
		a) Inverse of a nonsingular matrix by elementary transformation	22,23,24,25/4/2024	Completed	
		b)Inverse of a square matrix by adjoint method Ex-2.2		Completed	
		2. Application of matrices	26/4/2024	Completed	White board,

		a) Method of inversion	27,29,30/4/2024	Completed	Marker
		b) Method of Reduction Ex-2 .3			
3	Derivative	1.Derivative of composite functionEx-1.1	2,3,7,8/5/2024	Completed	
		2.Derivative of Inverse function Ex-1.2	9,10/5/2024	Completed	
		3.Logarithmic Function ,Derivative of Implicit Function Ex – 1.3	3,4,5,6/6/24	Completed	
		4.Derivative of Parametric Function and derivative of one function with respect to another With respect to another Ex – 1.4	7,8,10,11,13/6/24	Completed	White board,
		5. Higher order Derivative Ex-1.5	14,18,19/6/24	Completed	Marker
4	Application of Derivative	1.Application of derivative in geometry, Derivative of rate measure, velocity, Accn and Jerk .Ex-2.1	20,21,22/6/24	Completed	
		2.Approximation Ex-2.2	24,25/6/24		
		3. Rolle's Theorem and LMVT Ex – 2.3	26,27/6/24		
		4. Increasing and decreasing function, Maxima and Minima. Ex – 2.4	28,29/6/24		
5	Trigonometric function	1.Solution of Trigonometric function, Principal solution, General soln.Ex-3.1	1,2,3/7/24		
		2.Solution of triangle	12,13/7/24		
		,Sine rule, cosine rule, projection rule	15,16/7/24		White board,
		Half angle formula ,Napier's Analogy Ex -3.2			Marker
		3. Inverse tri. Function, Principal value of Inve. Tri. Function. Ex – 3.3	17,18,19/7/24		
6	Pair of straight line	1.Combined equation of pair of lines , Homogeneous equation of degree 2 Ex-4.1	22,23,24/7/24		
		2. Angle between lines represented by ax^2+2hxy	25,26,29/7/24		
		3. General second Degree Equation in x and y Ex-4.3	30,31/7/24		White board,
					Marker
		1.Elementary integration formulae, Rules or theorem of integration Ex-3.1	1,2,5/8/24		
		2. Methods of Integration	6,7,8,9/8/24		

7	Indefinite Integration	Substitution Ex – 3.2 (A)			White board,
		3.Some special Integral Ex-3.2 (B)	10,12,13/8/24		Marker
		4.Different Types of integral Ex-3.2 (c)	14,16,20/8/24		
		5.Integration by parts Ex- 3.3	22,23,24/8/24		
		6.Integration by partial fraction Ex-3.4	26,27,28/8/24		
8	Definite Integration	1.Fundamental theorem of integral calculus	29,30/8/24		
		2. Properties of definite integral with proof.Ex -4.2	31/8/24,		
					White board,
9	Application of definite integral	1.Area under the curve Ex-5.1	6,9/9/24		
10	Differential Equation	1.Defn. of differential Equation , order and Degree of Differential equation Ex-6.1	10/9/2024		
		2. Formation of Differential equation Ex-6.2	12/9/2024		
		3. Solution of differential equation Ex-6.3	13,14,18/9/24		
		4. Homogeneous Differential equation Ex-6.4	19,20/9/24		White board,
		5. Linear Differential Eqn Ex-6.5	23,24,25/9/24		Marker
		6.Application of differential equation	26,27,28,30/9/24		
		a) Population Growth and growth of bacteria			
		b) Radio active decay			
		c) Newton's Law of cooling ,			White board,
		Surface Area Ex-6.5			Marker
11	Linear Programming				
		1.Convex Set Ex-7.1	1/10/2024		
		2. Graphical Solution Ex-7.2			White board,
		3. Meaning of LPP , Formulation Ex – 7.3	3,4/10/24		Marker
		4.Solution of LPP ,Corner point method Ex-7.4			

12	Probability Distribution	1.Random Variable , Types of random variable a) Discrete b) Continuous , Probability Distribution of discrete Randon Variable, Prbability mass Function , cumulative distribution function , Expected value and variance of a random variable Ex-7.1	7,8/10/24		
		2. Probability Distribution of continuous random variable , Probability density function , cumulative Distribution function . Ex-7.2	9,10,11/10/24		
13	Binomial Distribution	1.Bernoulli Trial , Binomial distribution	14,15/10/24		White board,
		2. Mean and variance of Binomial Distribution	16,17,18/10/24		Marker
		Ex-8.1			
14	Vectors	1.Representation of Vector , Magnitude of Vector , Types of Vector , Algebra of Vector ,	11,12/11/24		
		Vector in 2D, Three dimensional co-ordinate system, component of vector ,position vector of a point in a space Ex-5.1			
		2.Section Formula ,midpoint formula ,theorems, Ex-5.2	13,14,18/11/24		
		3. Product of Vectors, Angle between two vectors, projection ,Direction angles and Direction cosines Ex-5.3	19,20,21,22/11/24		White board,
		4. Vector Product of two vectors Ex-5.4	25,26,27/11/24 & 28,29,30/11/24		Marker
		5. Scalar Triple product ,vector Triple Product Ex-5.5			
15	Line and Plane	1.Vector and Cartesian equation of a line ,equation of a line passing through a given point and parallel to given vector ,equation of a line passing through given two point Ex-6.1	2,3,4/12/24		
		2. Distance of a point from a line, Distance between skew lines , Distance between parallel lines Ex-6.2	5,6,9/12/24		White board ,

		4. Equations of Plane , Equation of plane passing through a point and perpendicular to a vector , Cartesian form Ex-6.3	10,11,12/12/24		Marker
		5. Angle between planes Ex-6.4	14,16/12/24		
	Revision	Logic,Matrices, Derivative ,Trigonometric Function	17,18,19,20,23/12/24		

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