Pimpri Chinchwad Education Trust's
S.B.Patil College Of Science and Commerce
Sr. no. 110, Gate No 1, Ravet, Pune- 412101
www.sbpatilcollege.com, email-sbp.science@gmail.com
UDISE NO: 27252001412 College Index No : J.11.16.066

ACA/DI/15	Teaching Plan (TP)	Academic Year : 2025-26
Rev :00		

stream : Science **Division: A,B,C division** **Faculty Name :- Mrs .Kulkarni Pradnya ,**
Std :- 12 th **Subject - Mathematics** **and Mrs. Mayura Patel**
Subject Code - 40

Sr.No.	Lession Name	Name of the Topic	Planned date of commencing	Planned date of complition
1	Logic	1.Statement ,Truth value of Statement ,	**2/4/2025**	Completed
		Logical connectives ,simple and compound statement Ex-1.1	3/4/2025	Completed
		2. Statement pattern, logical equivalence ,Tautology, Contradiction ,Contingency Ex-1.2	4,7,8/4/2025	Completed
		3.Quantifiers,Quantified statement ,Duals,	9,10,11/4/2025	Completed
		Negation of compound statement,converse.inverse and contrapositive	12,15/4/2025	
		Of implication. Ex-1.3		Completed
		4.Algebra of statement Ex-1.4	16,17,21/4/2025	Completed
		5. Application of logic to switching circuit.Ex-1.5	22,23,24/4/2025	Completed
2	Matrices	1.Elementary Transformation , Inverse of matrix Ex-2.1	26,28/4/2025	Completed
		a) Inverse of a nonsingular matrix by elementary transformation	29/4/2024 & 2/5/25	Completed
		b)Inverse of a square matrix by adjoint method Ex-2.2	5/5/2025	Completed

		2. Application of matrices	6/5/2025	Completed
		a) Method of inversion		Completed
		b) Method of Reduction Ex-2 .3	7/5/2025	
3	**Linear Programming**	1.Convex Set Ex-7.1	8/5/2025	Complted
		2. Graphical Solution Ex-7.2		
		3. Meaning of LPP , Formulation Ex – 7.3	9,10/5/2025	
		4.Solution of LPP ,Corner point method Ex-7.4		
4	**Derivative**	1.Derivative of composite functionEx-1.1	2,3,4,5/6/2025	
		2.Derivative of Inverse function Ex-1.2	6,9/6/2025	
		3.Logarithmic Function ,Derivative of Implicit Function Ex – 1.3	10,11,12/6/25	
		4.Derivative of Parametric Function and derivative of one function with respect to another With respect to other Ex – 1.4	13,14,16,17,18/6/25	
		5. Higher order Derivative Ex-1.5	19,20,23/6/25	
5	**Application of Derivative**	1.Application of derivative in geometry, Derivative of rate measure, velocity,Accn and Jerk .Ex-2.1	24,25,26/6/25	
		2.Approximation Ex-2.2	27,28/6/25	
		3. Rolle's Theorem and LMVT Ex – 2.3	30/6/25 and 1/7/2025	
		4. Increasing and decreasing function, Maxima and Minima. Ex – 2.4	2,3,4/7/25	
6	**Trigonometric function**	1.Solution of Trigonometric function, Principal solution, General soln.Ex-3.1	7,8,9/7/25	
		2.Solution of triangle	10,11/7/25	
		,Sine rule, cosine rule, projection rule	12,14,21/7/25	
		Half angle formula ,Napier's Analogy Ex -3.2		
		3. Inverse tri. Function, Principal value of Inve. Tri. Function. Ex – 3.3	22,23,24,25,26/7/25	
		1.Combined equation of pair of lines ,	28,29,30,31/7/25	
		Homogeneous equation of degree 2 Ex-4.1		

7	**Pair of straight line**	2. Angle between lines represented by ax^2+2hxy	1,4/8/2025	
		3. General second Degree Equation in x and y	5,6,7,8/8/2025	
		Ex-4.3		
8	**Indefinite Integration**	1.Elementary integration formulae,	1,4,5/8/25	
		Rules or theorem of integration Ex-3.1		
		2. Methods of Integration	6,7,8,9/8/25	
		Substitution Ex – 3.2 (A)		
		3.Some special Integral Ex-3.2 (B)	11,12,13,14/8/25	
		4.Different Types of integral Ex-3.2 (c)	18,19,20/8/25	
		5.Integration by parts Ex- 3.3	21,22,23/8/25	
		6.Integration by partial fraction Ex-3.4	25,26,28/8/25	
9	**Definite Integration**			
		1.Fundamental theorem of integral calculus	29,30/8/25	
		2. Properties of definite integral with proof.Ex -4.2	2,3,4/9/2025	
10	**Application of definite integral**	1.Area under the curve Ex-5.1	8,13/9/25	
11	**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	15,16,17/9/25	
		2. Probability Distribution of continuous random variable , Probability density function , cumulative Distribution function . Ex-7.2	18,19,23/9/25	
12	**Binomial Distribution**	1.Bernoulli Trial , Binomial distribution	24,25/9/25	
		2. Mean and variance of Binomial Distribution	26,27/9/25	
		Ex-8.1		
		1.Defn. of differential Equation , order and Degree of Differential equation Ex-6.1	29,30/9/2025	
		2. Formation of Differential equation Ex-6.2	1,3/10/2025	

13	**Differential Equation**	3. Solution of differential equation Ex-6.3	6,7,8,9/10/25	
		4. Homogeneous Differential equation Ex-6.4	3,4/11/25	
		5. Linear Differential Eqn Ex-6.5	6,7,8,10/11/25	
		6.Application of differential equation	11,12,13,14/11/25	
		a) Population Growth and growth of bacteria		
		b) Radio active decay		
		c) Newton's Law of cooling ,		
		Surface Area Ex-6.5		
14	**Vectors**	1.Representation of Vector , Magnitude of	17,18,19/11/25	
		Vector , Types of Vector , Algebra of Vector ,		
		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	20,21,22/11/25	
		3. Product of Vectors, Angle between two vectors, projection ,Direction angles and Direction cosines Ex-5.3	24,25,26,27/11/25	
		4. Vector Product of two vectors Ex-5.4	28,29/11/25	
		5. Scalar Triple product ,vector Triple Product Ex-5.5	1,2,3,4,5/12/25	
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	8,9,10,11/12/25	
		2. Distance of a point from a line, Distance between skew lines , Distance between parallel lines Ex-6.2	12,15,16,17/12/25	
	Revision	Revision of All Chapters	18,19,,22,23,24/12/25	

Mathematics Department
Mrs. Pradnya Kulkarni
Mrs. Mayura Patel

Mrs. Kalyani Bhondve
Science Co-ordinator

Mr. S.N.Patil
Principal

		4. Equations of Plane , Equation of plane passing through a point and perpendicular to a vector , Cartesian form Ex-6.3
		5. Angle between planes Ex-6.4
	Revision	Logic,Matrices, Derivative ,Trigonometric Function

Mrs .Pradnya Kulkarni & Mr. Bittu Kumar

Mrs. Kalyani Bhondve

Principal

10,11,12/12/24		Marker
14,16/12/24		
17,18,19,20,23/12/24		

8/5/2025

3,4/10/24