

Std :- 12 th
stream : Science

Subject - Mathematics
Division: B division

Subject Code - 40
Faculty Name :- M Mrs. Kulkarni

ACA/DI/15	Teaching Plan (TP)	Academic Year : 2023 -24
Rev :00		

Sr.No.	Lesson No.	Name Of The Topic	Planned date of commencing	Planned date of completion
1	Logic	1.Statement ,Truth value of Statement ,	17/4/23	
		Logical connectives ,simple and compound statement Ex-1.1	18/4/23	
		2. Statement pattern, logical equivalence ,Tautology, Contradiction ,Contingency Ex-1.2	18,19/4/23	
		3.Quantifiers,Quantified statement ,Duals,	20/4/23	
		Negation of compound statement,converse.inverse and contrapositive		
		Of implication. Ex-1.3		
		4.Algebra of statement Ex-1.4	24/4/23	
		5. Application of logic to switching circuit.Ex-1.5	25/4/23	
2	Trigonometric function	1.Solution of Trigonometric function, Principal solution, General soln.Ex-3.1	26/4/23, 27/4/23	
		2.Solution of triangle	27,29/4/23	
		,Sine rule, cosine rule, projection rule	8,9/5/23	
		Half angle formula ,Napier's Analogy Ex -3.2		

		3. Inverse tri. Function, Principal value of Inve. Tri. Function. Ex – 3.3	10,11,13/5/23	
3	Derivative	1.Derivative of composite function Ex-1.1	15,16,17,18/5/23	
		2.Derivative of Inverse function Ex-1.2	1,2/6/23	
		3.Logarithmic Function ,Derivative of Implicit Function Ex – 1.3	5,6,7,8/6/23	
		4.Derivative of Parametric Function and derivative of one function with respect to another With respect to another Ex – 1.4	10,12,13,14/6/23	
		5. Higher order Derivative Ex-1.5	15,19,20/6/23	
4	Application of Derivative	1.Application of derivative in geometry, Derivative of rate measure, velocity, Accn and Jerk .Ex-2.1	21,22,24/6/23	
		2.Approximation Ex-2.2	26,27/6/23	
		3. Rolle's Theorem and LMVT Ex – 2.3	28/6/23 & 3/7/23	
		4. Increasing and decreasing function, Maxima and Minima. Ex – 2.4	12,13,14/7/23	
5	Matrices	1.Elementary Transformation , Inverse of matrix Ex-2.1	17,18,19/7/23	
		a) Inverse of a nonsingular matrix by elementary transformation	20,24,25,26/7/23	
		b) Inverse of a square matrix by adjoint method Ex-2.2		
		2. Application of matrices	27/7/23 &	
		a) Method of inversion	1,2,3/8/23	
b) Method of Reduction Ex-2 .3				
6	Indefinite Integration	1.Elementary integration formulae, Rules or theorem of integration Ex-3.1	7,8/8/23	
		2. Methods of Integration	9,10,12/8/23	
		Substitution Ex – 3.2 (A)		
		3.Some special Integral Ex-3.2 (B)	14,16,17/8/23	
		4.Different Types of integral Ex-3.2 (c)	21,22,23/8/23	

		5.Integration by parts Ex- 3.3	24,26/8/23	
		6.Integration by partial fraction Ex-3.4	28,29,31/8/23	
7	Definite Integration	1.Fundamental theorem of integral calculus	1,4/9/23	
		2. Properties of definite integral with proof.Ex -4.2	5,14,18/9/23	
8	Application of definite integral	1.Area under the curve Ex-5.1	20,21,23/9/23	
9	Differential Equation	1.Defn. of differential Equation , order and Degree of Differential equation Ex-6.1	25/9/23	
		2. Formation of Differential equation Ex-6.2	26/9/23	
		3. Solution of differential equation Ex-6.3	27,30/9/23& 3/10/23	
		4. Homogeneous Differential equation Ex-6.4	4,5/10/23	
		5. Linear Differential Eqn Ex-6.5	9,10,11/10/23	
		6.Application of differential equation	12,14,16,17/10/23	
		a) Population Growth and growth of bacteria		
		b) Radio active decay		
		c) Newton's Law of cooling , Surface Area Ex-6.5		
10	Pair of straight line	1.Combined equation of pair of lines , Homogeneous equation of degree 2 Ex-4.1	18,20/10/23	
		2. Angle between lines represented by ax^2+2hxy	23,25,26/10/23	
		3. General second Degree Equation in x and y Ex-4.3	28,30/10/23	
		1.Representation of Vector , Magnitude of 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	20,21/11/23	

11	Vectors	2. Section Formula ,midpoint formula ,theorems, Ex-5.2	22,23,25/11/23	
		3. Product of Vectors, Angle between two vectors, projection ,Direction angles and Direction cosines Ex-5.3	28,29,30/11/23	
		4. Vector Product of two vectors Ex-5.4	1,4/12/23	
		5. Scalar Triple product ,vector Triple Product Ex-5.5		
12	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	5,6/12/23	
		2. Distance of a point from a line, Distance between skew lines , Distance between parallel lines Ex-6.2	7,9/12/23	
		4. Equations of Plane , Equation of plane passing through a point and perpendicular to a vector , Cartesian form Ex-6.3	11,12/12/23	
		5. Angle between planes Ex-6.4	13,14/12/23	
13	Linear Programming	1.Convex Set Ex-7.1	18/12/23	
		2. Graphical Solution Ex-7.2		
		3. Meaning of LPP , Formulation Ex – 7.3	19/12/23	
		4.Solution of LPP ,Corner point method Ex-7.4		
14	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	20,21/12/23	
		2. Probability Distribution of continuous random variable , Probability density function , cumulative Distribution function . Ex-7.2	23,26/12/23	

15	Binomial Distribution	1. Bernoulli Trial , Binomial distribution	27,28/12/23	
		2. Mean and variance of Binomial Distribution	29,30/12/23	
		Ex-8.1		

Mrs .Pradnya Kulkarni
Subject Teacher

Mrs. Kalyani Bhondve
Academic Co-ordinator

Mr.S.N Patil
Principal



Pradnya

Teaching Aid
PPT,White board,
Marker
PPT,White board,
Marker

PPT,White board,
Marker
PPT,White board,
Marker
PPT,White board,
Marker

PPT,White board,
PPT,White board,
Marker
PPT,White board,
Marker
PPT,White board,
Marker

PPT, White board,
Marker
PPT, White board ,
Marker
PPT, White board,
Marker

PPT, White board,
Marker