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

**Std :- 12 th** **Subject - Mathematics** **Subject Code - 40**

**stream : Science** **Division: A,B,C division** **Faculty Name :- Mrs .Kulkarni Pradnya**

**Mrs.Mayura Patel, Mrs.Vinita Chandratre**

| ACA/DI/15 | Teaching Plan ( TP) | Academic Year : 2026-27 |
|---|---|---|
| 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 , | 6/4/2026 | Completed |
| | | Logical connectives ,simple and compound statement Ex-1.1 | 4/4/2026 | Completed |
| | | 2. Statement pattern, logical equivalence ,Tautology, Contradiction ,Contingency Ex-1.2 | 8,9/4/2026 | Completed |
| | | 3.Quantifiers,Quantified statement ,Duals, | 10,11/4/2026 | Completed |
| | | Negation of compound statement,converse.inverse and contrapositive | | |
| | | Negation Of implication. Ex-1.3 | | Completed |
| | | 4.Algebra of statement Ex-1.4 | 13/4/2026 | Completed |
| | | 5. Application of logic to switching circuit.Ex-1.5 | 15/4/2026 | Completed |
| 2 | Matrices | 1.Elementary Transformation , Inverse of matrix Ex-2.1 | 16,17,20/4/2026 | Completed |
| | | a) Inverse of a nonsingular matrix by elementary transformation | 21,22,23,24/4/2026 | Completed |
| | | b)Inverse of a square matrix by adjoint method Ex-2.2 | | Completed |
| | | 2. Application of matrices | 25/4/2026 | Completed |
| | | a) Method of inversion | 27,28/4/2026 | Completed |
| | | b) Method of Reduction Ex-2 .3 | 29/14/2026,4/5/2026 | Completed |

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| 3 | **Linear Programming** | 2. Graphical Solution Ex-7.2 | 5,6/5/2026 | Completed |
| | | 3. Meaning of LPP , Formulation Ex – 7.3 | 7,8,9/5/2026 | Completed |
| | | 4.Solution of LPP ,Corner point method Ex-7.4 | | Completed |
| 4 | **Derivative** | 1.Derivative of composite functionEx-1.1 | 1,2,3,4/6/2026 | |
| | | 2.Derivative of Inverse function Ex-1.2 | 5,8,9/6/2026 | |
| | | 3.Logarithmic Function ,Derivative of Implicit Function Ex – 1.3 | 10,11,12,13/6/2026 | |
| | | 4.Derivative of Parametric Function and derivative of one function with respect to another With respect to another Ex – 1.4 | 15,16,17/6/2026 | |
| | | 5. Higher order Derivative Ex-1.5 | 18,19,22,23/6/2026 | |
| 5 | **Application of Derivative** | 1.Application of derivative in geometry, Derivative of rate measure, velocity,Accn and Jerk .Ex-2.1 | 24,25/6/2026 | |
| | | 2.Approximation Ex-2.2 | 26,27/6/2026 | |
| | | 3. Rolle's Theorem and LMVT Ex – 2.3 | 29,30/6/2026 | |
| | | 4. Increasing and decreasing function, Maxima and Minima. Ex – 2.4 | 1,2/7/2026 | |
| 6 | **Trigonometric function** | 1.Solution of Trigonometric function, Principal solution, General soln.Ex-3.1 | 3,6/7/2026 | |
| | | 2.Solution of triangle | 7,8,9/7/2026 | |
| | | 3.Sine rule, cosine rule, projection rule | 10,11/7/2026 | |
| | | Half angle formula ,Napier's Analogy Ex -3.2 | | |
| | | 4. Inverse tri. Function, Principal value of Inve. Tri. Function. Ex – 3.3 | 17,20,21/7/2026 | |
| 7 | **Pair of straight line** | 1.Combined equation of pair of lines , | 22,23,24,25/7/2026 | |
| | | Homogeneous equation of degree 2 Ex-4.1 | | |
| | | 2. Angle between lines represented by $ax^2+2hxy$ | 27,28,29/7/2026 | |
| | | 3. General second Degree Equation in x and y | 30,31/7/2026 | |
| | | Ex-4.3 | | |
| 8 | **Indefinite Integration** | 1.Elementary integration formulae, | 3,4,5/8/2026 | |
| | | Rules or theorem of integration Ex-3.1 | | |
| | | 2. Methods of Integration | 6,7,10,11/8/2026 | |
| | | Substitution Ex – 3.2 (A) | | |

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| 8 | **Indefinite Integration** | 3.Some special Integral Ex-3.2 (B) | 12,13,14/8/2026 | |
| | | 4.Different Types of integral Ex-3.2 (c) | 14,16,20/8/2026 | |
| | | 5. Integration by parts Ex- 3.3 | 22,23,24/8/2026 | |
| | | 6. Integration by partial fraction Ex-3.4 | 25,26,27/8/2026 | |
| 9 | **Definite Integration** | 1.Fundamental theorem of integral calculus | 29,31/8/2026 | |
| | | 2. Properties of definite integral with proof.Ex -4.2 | 31/8/24, 1,2/9/2026 | |
| 10 | **Application of definite integral** | 1.Area under the curve Ex-5.1 | 6,9/9/2026 | |
| 11 | **Differential Equation** | 1.Defn. of differential Equation , order and Degree of Differential equation Ex-6.1 | 10,11,12/9/2026 | |
| | | 2. Formation of Differential equation Ex-6.2 | 9/12/202026 | |
| | | 3. Solution of differential equation Ex-6.3 | 15,16/9/2026 | |
| | | 4. Homogeneous Differential equation Ex-6.4 | 17,21/9/2026 | |
| | | 5. Linear Differential Eqn Ex-6.5 | 22,23,24/9/2026 | |
| | | 6.Application of differential equation | 1,5,6/10/2026 | |
| | | a) Population Growth and growth of bacteria | | |
| | | b) Radio active decay | | |
| | | c) Newton's Law of cooling , | | |
| | | Surface Area Ex-6.5 | | |
| 12 | **Probability Distribution** | 1.Random Variable , Types of random variable a) Discrete b) | 7,8/10/2026 | |
| | | 2. Probability Distribution of continuous random variable , Probability density function , cumulative Distribution function . Ex-7.2 | 9,10,12/10/2026 | |
| 13 | **Binomial Distribution** | 1.Bernoulli Trial , Binomial distribution | 13,14,15/10/2026 | |
| | | 2. Mean and variance of Binomial Distribution | | |
| | | Ex-8.1 | | |
| 14 | **Vectors** | 1.Representation of Vector , Magnitude of | 19,21,22/10/2026 | |
| | | 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- | 23,24,26/10/2026 | |
| | | 3. Product of Vectors, Angle between two vectors, projection | 27,28,29/10/2026 | |
| | | 4. Vector Product of two vectors Ex-5.4 | 23,24,25,26/11/2026 & | |

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| | | 5. Scalar Triple product ,vector Triple Product Ex-5.5 | 27,28,30/11/2026 | |
| 15 | **Line and Plane** | 1.Vector and Cartesian equation of a line ,equation of a line | 1,2,3,7/12/2026 | |
| | | 2. Distance of a point from a line, Distance between skew lines , Distance between parallel lines Ex-6.2 | 8,9,10/12/2026 | |

Mrs .Pradnya Kulkarni
Mrs.Mayura Patel
Mrs.Vinita Chandratre
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Mrs. Kalyani Bhondave
Academic Co-ordinator

Mr.S.N.Patil
Principal

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