Subject-Maths

S.NO	MONTHS	TOPIC	LEARNING OUTCOMES
1	April	Relations and Functions	After studying this lesson students can I.verify the equivalence relation in a given set. 2.verify that the given function is one-one, many one, onto/not onto or one-one onto, 3, Find the inverse of a iven function.
	April	Matrices and Determinants	After studying this lesson students can I.Understand matrix and its practical uses, 2. Understand different types of matrices including their notation, 3. Perrform different operations on two or more matrices. 4. Formation of matrices of different order. 5.Find the values of unknown elements 6. Evaluate determinants. 7,Expand determinants of second and third order 8. Evolve and describe properties of determinants. 9.Apply determinants and its properties in different type of mathematical problems. 10. Define and find minor, cofactor and adjoint for a matrix. Il.Find the inverse of a matrix. 12.Solve system of linear equations using inverse of a matrix. 13.Check the consisten of tem of linear e uations.
2	May	Inverse Trigonometric Functions	After studying this lesson students can I. Find the inverse of trigonometric functions 2. Explain the concept of principal value branch and principal value of inverse trigonometric functions. 3.Sketch the graph of inverse trigonometric functions. 4. Relate inverse trigonometric functions to each other 5.Solve simple equations involving inverse trigonometric functions. 6. Reduce expression involving inverse trigonometric functions into sim lest form.

3	June	Continuity and differentiability	After studying this chapter students can l,check the continuity of a function at a point and in an interval. 2,Check the differentiability of a function. 3.Apply the methods of differentiating parametric function,inverse functions,ex onential and 10 arithmic

			functions. 4.Find the higher order derivatves.
	June	Applications of derivatives	After studying this chapter students can I.Evaluate rate of change of a quantity with respect to another quantity. 2.Find out the intervals in which a function is increasing or decreasing.
4	July	Applications of derivatives	After studying this chapter students can 1.Locate the turning points and use of derivative to distinguish between maxima and minima. 2.Find solution of practical problems based on maxima and minima.
	July	Integrals	After studying this chapter students can 1.Understand indefinite integration as reverse process of differentiation. 2.1ntegrate simple functions like x4,sinnx , ex, logx and their sums ,differences or constant multiples. 3.1ntegrate the functions which can be converted into standard form using substitution.
5	August	Integrals	4.1ntegrate the rational functions using partial fractions. 5.1ntegrate the product of functions using by parts. 6.Evaluate definite integrals and use properties of definite integral in evaluation of integrals. 7.1Jnderstand the idea of the area under a curve as the limit of a sum .
6	September	Differential equations	After studying this chapter students can I.Explain the meaning of differential equation. 2.Describe the order and degree of a differential equation. 3.Form a differential equation from given equation of a curve. 4.Solve the differential equation of first order and first degree. 5.Apply the concept of differential equation in general problems.

7	October	Vector Algebra	After studying this chapter students can I.define scalar and vector quantities 2.define types of vectors 3.find position vector of a point using unit vectors in the directions of coordinate axes. 4.carry out addition and subtraction of vectors and multiplication of vectors by a scalar. 5.Apply scalar product in finding angle between two vectors and projection of a vector on another vector. 6.Find vector product of two vectors and its application in determinin the area of a trian le and parallelo ram.
			7.find scalar triple product of vectors and its application in finding the volume of a parallelopiped.
8	November	Three-dimensional geometry	After studying this chapter students can : l.find direction cosines and direction ratios of a line. 2.find vector and cartesian equations of lines. 3.find shortest distance and angle between two lines. 4.understand the conce tof co lanari of lines.
9	December	Probability	After studying this chapter students can: l.find conditional probability involving different types of event ; 2.explain independent events and use multiplication theorem to find probability; 3.understand Bayes' theorem and its application; 4.find probability distribution of a random variable,mean and variance of probability distribution
	December	Linear programming	After studying this chapter students can: l.have a conceptual understanding related to terminology used in linear programming be able to convert different types of problem into a LPP; 2.be able to graphical method to find solution of linear programming problems; 3.be able to check the authenticity of solution in case of o en feasibler ion.