CHOITHRAM SCHOOL, MANIK BAGH, INDORE
ANNUAL CURRICULUM PLAN SESSION 2017 – 2018

CLASS: XII
SUBECT: MATHEMATICS

Month & Working Days	Theme/ Sub-theme Topic Days	Learning Objectives		Activities & Resources	Expected Learning Outcomes	Assessment
		Subject Specific (Content Based)	**Behavioural (Application based)**			
June 15	**Inverse Trigonometric Functions 10**	To enable the students to understand 1)Basic concept of trigonometric functions along with graph for existence of bijective functions 2)Restriction on domain and range (Principal Value Branch) 3)Inverse of all trigonometric functions and it properties 4)Solution of problem based on substitution by a trigonometric function	To enable the students to understand 1)Imagine beyond the surface 2) To develop indirect approach (Different way to solve problem)	Students will be asked to calculate the following angle with protector and using inverse function NCERT	Students learnt about 1)Domain and range (Principal Value Branch) of Inverse trigonometric function 2)Inverse of all trigonometric functions and it properties 3)Solution of problem based on substitution by a trigonometric function 4)Imagination (activity 1) 5)Critical thinking	Assessment will be done on the basis of decided Rubrics.
July 22	**Continuity & Differentia bility** **(June 5 + July10)**	To enable the students to understand 1)continuity and differentiability. 2)change in one variable when the other variable changes (i.e. meaning of differentiation) 3)Differentiation of trigonometric function, logarithmic function, exponential function, inverse of trigonometric function, implicit functions, parametric form and higher order derivatives.	To enable the students to understand 1)Through problems based Rolles Theorem and Mean value Theorem imagination skills are imbibed. 2)Derivatives are used in economics to find out cost function and application skill will developed.	NCERT explanation of graph	Students learnt about 1)continuity and differentiability of a function. 2)to differentiate trigonometric function, logarithmic function, exponential& parametric function, inverse of trigonometric function, 3)higher order derivatives. 4) Mean value theorem and	Assessment will be done on the basis of decided Rubrics.

Month	Chapter	Objectives	Skills/Values	Reference	Learning Outcomes	Assessment
		4)Mean value theorem and Rolle's theorem.			Rolle 's Theorem. Through explanation of graph creative thinking will be imbibed.	
	Applications of Derivatives 15	To enable the students to understand 1)Rate as a measure 2)Increasing and decreasing function 3)Tangent and normal 4)Errors and approximations 5)maxima and minima	Through problems based on AOD, they will develop 1)Imagination 2)Systematic approach 3)To handle real life situation	NCERT	Students learned 1)Rate as a measure 2)Increasing and decreasing function 3)Tangent and normal 4)Errors and approximations 5)maxima and minima 6)Imagination 7)Systematic approach 8)To handle real life situation	Assessment will be done on the basis of decided Rubrics.
August 16	Indefinite Integrals 10	Students will understand 1) integration 2)Different methods of integration	Through problems based on integration , they will develop 1)Manipulation(assumption) 2) Logical thinking 3) Systematic approach	NCERT	Students learned 1)integration 2)Different methods of integration By different approaches they learn 3)Manipulation 4) Logical thinking 5) Systematic approach	Assessment will be done on the basis of decided Rubrics.
	Definite Integrals 06	To enable the students to understand 1) the meaning of Definite integral and properties of definite integrals. 2)To enable the students to understand Limit as a sum.	Through approach adopted for problems 1)Critical thinking 2)Imagination 3) indirect approach	NCERT	Students learned 1) Definite integral and properties of definite integrals. 2)Integration as Limit as a sum. 3))Critical thinking 4)Imagination 5) indirect approach	Assessment will be done on the basis of decided Rubrics.
September 21	Applications of Integrals 06	To enable the students to find the Area of bounded curve	To enable the students to develop 1)Critical thinking to visualize shapes 2) Accuracy for calculating area	NCERT	Students learned 1) to find the Area of bounded curve 2)Critically think and visualize	Assessment will be done on the basis

					the shapes 3) Accurately calculate area	of decided Rubrics.
	Differential equation 10	To enable the students to find 1) the function when differential equations is given. 2)Degree and order of differential equations 3) solution of various forms of differential equations 4)general and particular solution.	To enable the students to understand 1)Different types solution 2)Different approaches for solution to problems	NCERT	Students learned to find 1) the function when differential equations is given. 2)Degree and order of differential equations 3) solution of various forms of differential equations 4)general and particular solution. 5) Different types solution 6)Different approaches for solution to problems	
	Vectors 07	To enable the students to understand the concept of 1)vectors and its usage 2)Types of vectors their properties 3) Representation of vectors 4) dot and cross product of vectors 5)area of triangle and quadrilateral. 6)Scalar triple product	Through the concept of vectors and its usage students will attain 1) Development of visualization 2)understanding need for different types of quantities	NCERT	Students learned about 1)vectors and its usage 2)Types of vectors their properties 3) Representation of vectors 4) dot and cross product of vectors 5)area of triangle and quadrilateral. 6)Scalar triple product 7) to visualize vectors 8)understanding different types of quantities and its importance	Assessment will be done on the basis of decided Rubrics.
October 03 November 21	Three Dimensional Geometry 03 Three Dimensional Geometry	To enable the students to understand the concept of 1)Straight line in space 2) Equation of line in Cartesian and vector form 3) Angle between two lines 4)shortest distance between two lines,	Through approach adopted for problems students will attain 1)Imagination 2)Systematic approach 3)Efficiency 4)Creativity	NCERT PPT	Students learned about 1)Equation of line in Cartesian and vector form 2) Angle between two lines and shortest distance between them plane and shortest distance in 3	Assessment will be done on the basis of decided Rubrics.

	13	plane and shortest distance in 3 Dimensional geometry 5)Foot of perpendicular from a point to the line 6) Equation of planes in cartesian and vector form 7)Angle between two planes 8)shortest distance between a point and a plane . 9)intersection point of a line and plane			Dimensional geometry 5)Foot of perpendicular from a point to the line 6) Equation of planes in cartesian and vector form 7)Angle between two planes and shortest distance between a point and a plane . 8)intersection point of a line and plane 9) Imagine line and plane 2)To proceed in Systematic manner 3)deal Efficiently	
	Probability 08	To enable the students to understand: 1)Addition theorems on probability 2)Conditional probability 3)Multiplication theorems on probability 4)Independent events 5)Total probability and Baye's Theorem 6)Binomial distribution 7)Probability distribution 8)Mean and variance	Through this chapter students will develop 1)Logical thinking to Handling Risk 2)Imagination for Manipulating situation for better result	NCERT Activity with cards and coin to show dependent and independent event	Students learned/ developed : 1)Addition and Multiplication theorems on probability 2)Conditional probability 4)Independent events, Total probability and Baye's Theorem 5)Binomial& Probability distribution 6)Mean and variance . 7)Logical thinking to Handle Risk 8)Imagination for Manipulating situation	Assessment will be done on the basis of decided Rubrics.
Dece mber 10	Linear Programmi ng 05	To enable the students to understand: 1)Objective function &Constraints 2)Non-negative constraints 3)Basic variables & Basic solution 4)Feasible solution -Optimal solution 5)Iso-profit line 6)Convex set 7)Corner point method 8)Bounded region, Un Bounded region	Through this chapter students will attain 1) To handle optimization problems(Efficiency) 2) develop Systematic approach 3)Differentiate constraint from problem.	NCERT Through plotting of graph (Graphical method.)	Students learned about 1) Objective function &Constraints 2) Feasible solution -Optimal solution 3)Iso-profit line 4) Corner point method for Bounded region and Un Bounded region	Assessment will be done on the basis of decided Rubrics.

		9)Iso-profit or Iso-cost method			5)Differentiate constraint from problem. 6)optimization problems 7) Systematic behavior & Efficiency	
	Revision 05					