

YEAR PLAN 2018 – 2019
Grade XII (Commerce) Mathematics

The academic year is divided into three sessions.

Session One: June to August 2018.

Session Two: September 2018 to December 2018.

Session Three: January 2019

Monthly Tests: June, July, October

Summative Assessment I – August 2018

Model Exam-I-December 2018

Model Exam -II – January 2019

AIM: To Learn and apply the subject in the related disciplines as well as in daily life situations.

ENDURING UNDERSTANDING: To understand and appreciate the importance of the subject in daily life.

GENERAL OBJECTIVES To

- develop problem solving skills and logical reasoning power.
- learn mathematical language, symbols, formulae, figures, diagrams, definitions and formulae.
- prepare for further learning in Mathematics and other related disciplines.
- prepare a sound foundation needed for various vocations.
- develop an insight into the relationship of different topics and branches of the subject.
- develop a positive attitude to the use of internet as a learning tool.

Duration	Topics/Units	Specific Learning Objectives	Activities	Resources
First Term (June – July)				
JUNE	<p>#Matrices & Determinants 1)Matrices Definition,types of matrices,properties of matrices,finding inverse of matrices using elementary transformations.</p> <p>2) Determinants Definition,properties of determinants,solution of eqns using inverse of a matrix</p> <p>#Linear Programming(Section C) Solving linear inequations using the idea of LPP</p> <p>#Relations & Functions 1)Relations- Definition;Types of relations;checking for equivalence relation Monthly test</p>	<p>Usage of matrix arithmetic. Describe what the matrix inverse is, why is it useful & when it exists</p> <p>Correlate matrices & determinants. Usage of matrices to solve eqns</p> <p>Learns to form inequalities from problem given and finds the solution</p> <p>Recollecting the idea of relations.</p>	<p>Computing with matrices Solving linear eqns using matrices.</p> <p>Solving linear eqns using matrices.</p> <p>Solving linear inequalities graphically</p> <p>Check whether a relation is equivalence or not</p>	<p>ISC Mathematics: (M.L.Aggarwal)</p> <p>Extra qns from 1)ISC Mathematics: Class XII (O.P.Malhotra) 2)Class 12 Mathematics (R.S.Aggarwal)</p>
JULY	<p>#Relations & Functions 2)Functions-Definition;Types of functions;Inverse of a function;checking whether a function is invertible or not3)Binary operations Definition & properties of binary operations</p> <p>4)Inverse Trigonometric Functions – Definition and properties Monthly test</p>	<p>Associating relations & functions</p> <p>Usage of functions in doing diff operations which are same as in real</p>	<p>Finding the inverse of a function</p> <p>Computing operations in fns.</p>	<p>ISC Mathematics: (M.L.Aggarwal)</p> <p>Extra qns from 1)ISC Mathematics: Class XII (O.P.Malhotra) 2)Class 12 Mathematics</p>

		numbers Correlates the idea of trigonometric fns and inverse of a function	Learns to apply inverse of a function in trigonometry	(R.S.Aggarwal)
AUGUST	Summative Assessment I & Onam Holidays			
SECOND TERM (September – November)				
SEPTEMBER	#Continuity & Differentiability 1)Continuity Defining continuity and their properties 2)Differentiability Types of derivatives 3)Indeterminate forms of Limits # Application of Derivatives 1)LMV theorem and Rolles theorem 2)Derivative as rate of measure 3)Tangents and Normals 4)Increasing and Decreasing functions 5)Errors & Approximations 6)Maxima & Minima #Linear Regression Lines of Regression;Coefficient of correlation and their relation Monthly test	Correlating limits & continuity Checking the derivability of a function Correlating limits and derivatives Correlate integration & differentiation. Identify and apply various methods of integration. Recollects the previous knowledge to find correlation coefficient	Ensuring previous knowledge of limits in proving continuity of a function and henceforth in proving differentiability. Analysing the geometrical interpretations of various methods of derivatives. Finding the line of best fit by the method of least squares	ISC Mathematics: (M.L.Aggarwal) Extra qns from 1)ISC Mathematics: Class XII (O.P.Malhotra) 2)Class 12 Mathematics (R.S.Aggarwal)
OCTOBER	# Integration 1) Indefinite integrals - Integration using standard results;Integration by substitution;Integration by parts;Integration using partial fractions 2)Definite Integrals - Evaluating definite integrals;Properties of definite integrals;Limit of sum . #Probability Conditional probability:Independentevents;Bayestheorem;Probabilitydistribution;Binomial distribution	Correlate integration & differentiation. Identify and apply various methods of integration. Apply the properties	Learning the standard integrals. Identifying various methods to solve integrals.	ISC Mathematics: (M.L.Aggarwal) Extra qns from 1)ISC Mathematics: Class XII (O.P.Malhotra) 2)Class 12 Mathematics (R.S.Aggarwal)

November	<p>Monthly test</p> <p>#Application of Calculus(Section C)-Cost function and Revenue Function;Profit function and Breakeven point</p> <p>#Differential Equations Definition;how to form diff eqns;solution of different types of diff eqns.</p> <p>Revision</p>	<p>of definite integrals.</p> <p>Recall the basic ideas on probability Analyse the given problems and apply Baye's theorem. Distinguish between the probability distribution and binomialdistribution.</p> <p>Correlates the idea of derivatives in other fields</p> <p>Apply integration to solve differential equations.lane</p>	<p>Learn to distinguish between indefinite and definite integrals</p> <p>Discussion on Baye's theorem. More problem solving</p>	<p>ISC Mathematics: (M.L.Aggarwal)</p> <p>Extra qns from 1)ISC Mathematics: Class XII (O.P.Malhotra) 2)Class 12 Mathematics (R.S.Aggarwal)</p>
	DECEMBER	<p>Revision Model Exam I X'masHodliday</p>		
JANUARY	<p>Revision Model Exam II</p>	<p>Analyse the learnt concepts. Recall the required formulae and results.</p>	<p>Revision, doubt clearing sessions, tests. Problem solving.</p>	
FEBRUARY	<p>Remedial work Individual support</p>		<p>Doing past papers</p>	
MARCH	<p>Board Examination</p>			
<p>Facilitators' name: Mrs. Lekshmy Suresh Text Book:ISC Mathematics: (M.L.Aggarwal) Approved by the Principal</p>				