

SRI LANKAN SCHOOL - MUSCAT

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SUBJECT :		12 COMMERCE - MATHEMATICS		TEACHER : John T Gnananesan		
WEEK & Date	NO OF PERIODS	UNIT	TOPICS/ DETAILS	ILO	DATE OF COMPLETION	REMARKS
1 31st Sep- 1st Octo	4	C1 - 1	Algebra and Functions	To be able to: Simplify expressions and collect like terms Apply the rules of indices Multiply out brackets Factorize expressions including quadratics Manipulate surds		
2 4th - 8th Octo	10	C1 - 2	Quadratic Functions	Solve Quadratic equation using factorization Complete the square of a quadratic function Solve Quadratic equation using formulae		
3	11th - 15th October Eid Al Hada					
4 18th - 22nd Octo	10	C1-2 C1 - 3.1 C1 - 3.2 C1 - 3.3	Equations and Inequalities	Calculate the discriminant of a quadratic expressions Sketch the graph of Quadratic function Solve simultaneous equations by elimination Solve simultaneous equations by substitution Solve simultaneous equations involving both linear and quadratic equations		
5 25th -29th Octo	10	C1 - 3.4 C1 - 3.5 C1 - 4.1 C1 - 4.2	Sketching Curves	Solve linear inequalities Solve quadratic inequalities Sketch cubic graphs		
6	8	3rd-6th October Revision & Monthly Test				
7 9th-13th Octo	10	C1 - 4.3 C1 - 4.4 C1 - 4.5 C1 - 4.6 C1 - 4.7		Sketch graphs with reciprocal function Find where curves intersect Apply transformations to sketch graphs		
8 16th-20th Octo	10	C1 - 5	Coordinate Geometry	Find the gradient and intercept of a straight line Calculate the gradient of a line by joining a pair of points Find the equation of a line Find the equation of a line passing through a pair of points Determine the point where a pair of straight lines intersect		

				Apply the rule concerning perpendicular gradients		
9 23rd - 27th Octo	10	C1 - 6.1 C1 - 6.3 C1 - 6.4 C1 - 6.5 C1 - 6.6 C1 - 6.7	Sequences and Series Arithmetic series	Generate a sequence from the n'th term to form a recurrence relationship Apply n'th term formulae to find any term Find the n'th term of an arithmetic series Find the sum of n terms of an arithmetic series Apply the summation notation together with arithmetic sequence formulae to solve problems		
10 1st-4th Nov	8	C1 - 7.1 C1 - 7.2 C1 - 7.3 C1 - 7.4 and 7.5	Differentiation	Estimate the gradient of a tangent Find the gradient of a function using the formulae for simple functions Apply gradient formulae for functions where the powers are real		
11 6th-10th Nov	10	C1 - 7.6	Revision Monthly test	Find Second order derivatives		
12 13th-17th Nov	10	C1 - 7.7 C1 - 7.8 C1 - 8.1 C1 - 8.2	Integration	Determine the rate of change of a function Find the equation of the tangent and normal to a curve at a specified point Integrate simple functions		
13 20th-24th Nov	10	C1 - 8.3 C1 - 8.4 C1 - 8.5		Integrate functions using the integral symbol Integrate complex functions by simplifying Find the constant of integration by substituting in a given point (x,y)		
14 27th Nov- 1st Dec	10	C2- 1.1 C2 - 1.2 C2 - 1.3 C2 - 1.4	Algebra and Functions	Simplify algebraic fractions by dividing Divide a polynomial Factorize a polynomial using factor theorem Apply the remainder theorem to find the remainder		
15 4th-8th Dec	Revision & first Term Test					
16 11th - 15th Dec	First Term Test & Paper Correction					
17 18th-22nd	Paper Correction & PTI					

Dec						
18 25th-29th Dec	First Term Vacation					
19 1st -5th Jan	First Term Vacation					
20 8th-12th Jan	10	C2 - 2.1 C2 - 2.2 C2 - 2.3	The sine and cosine rule	Apply sine rule to find a missing side Apply sine rule to find a missing angle		
21 15th-19th Jan	10	C2 - 2.4 C2 - 2.5		Apply cosine rule to find a missing side Apply cosine rule to find a missing angle		
22 22nd-26th Jan	10	C2 - 2.6 C2 - 2.7		Solve problem using combinations of the above and possible Pythagoras Therom Find the area of a triangle using an appropriate formula		
23 29th Jan 2nd Feb	10	C2 - 3.1 C2 - 3.2 C2 - 3.3 C2 - 3.4	Exponentials and Logarithms	Draw exponential graphs Write an expression in logarithmic form Calculate logarithms to the base 10 using calculators Apply laws of logarithms to solve problems		
24 5th-9th Feb	10	C2 - 3.5 C2 - 3.6 C2 - 4.1 C2 - 4.2 C2 - 4.3 C2 - 5.1 C2 - 5.2	Coordinate Geometry The binomial expansion	Solve equations in the form of Solve problems by changing the base of a logarithm Find the midpoint of a line Find the distance between a pair of points Find equation of a circle Expand expressions using Pascal's triangle Expand expressions using Faactorial notation		
25 12th-16th Feb	10	C2 - 5.3 C2 - 5.4 C2 - 6.1 C2 - 6.2 C2 - 6.3 C2 - 6.4 C2 - 7.1 C2 - 7.2	Radian measure and its application Geometric sequences and series	Workout coefficients using binomial expansion Expand using the expansion of Convert between radians and degrees and vice versa Find the length of an arc using the formulae Find the area of a sector using the formulae Calculate the area of a segment Find common ratio of a geometric sequence Calculate the nth term of a geometric sequence		

26 19th -23rd Feb	10	C2 - 7.3 C2 - 7.4 C2 - 7.5 C2 - 8.1, 8.2 and 8.3 C2 - 8.4 C2 - 8.5 C2 - 9.1 C2 - 9.2 C2 - 9.3	Graphs of trigonometric functions Differentiation	Find the sum of a geometric sequence Solve problems involving growth and decay Find the infinity of a sum to infinity of a convergent GP Calculate the sine, cosine and tangent of any angle Sketch the graphs of the sine, cosine and tangent functions Sketch simple transformations of these graphs Find Stationary points using differentiation Find minimum, maximum and point of inflexion Solve problems involving differentiation		
27 26thFeb- 2nd March	10	C2 -10.1 C2 - 10.2 C2 - 10.3 C2 - 10.4 C2 - 11.1 C2 - 11.2 and 11.3 C2 - 11.4 C2 - 11.5	Trigonometrical identities and Simple equations Integration	Apply Trigonometric relationship to solve the problems Solve simple trigonometrical equations of the form $\sin \theta = k$ Solve trigonometric equations of the form $\sin (n\theta + \alpha) = k$, $\cos (n\theta + \alpha) = k$ or $\tan (n\theta + \alpha) = k$ Solve quadratic equations in $\sin \theta$, $\cos \theta$ or $\tan \theta$ Integrate simple functions within defined limits Find area under the graph using integration Find area between a curve and a line Apply trapezium rule to approximate area under the graph		
28 5th-9th March	10 10	S1- 1 S1- ch 2 S1-ch 3 3.2 3.3	Mathematical models in probability and statistics Representation and summary of data- location Representation and summary of data- measures of dispersion.	Find the process of mathematical modelling, Find the stages of the modelling process *Recognise different types of data.*Find the mean,mode and median for discrete data presented as a list.*Find the mean,mode and median for discrete data presented in a table.*Find the mean,mode and median for continuous data presented in a grouped frequency table.*Use coding to make calculations of measures of location simpler. *Find the quartiles,range,interquartile range,variance and standard deviation for: discrete data presented as a list, discrete data presented in a table,continuous data presented in a grouped frequency table.*Use coding to make calculations of measures of dispersion simpler.		

		3.4 3.5 3.6				
		S1-ch 4	Representation of data		*Draw stem and leaf diagrams.*Calculate outliers *Draw box plots *Draw histograms .*Work out whether data are skewed .*compare sets of data.	
29 12th - 16th March	10	S1- 5 -6 -7 -8 -9	Probability Coorelation Regression Discrete random variables The Normal distribution		Solving probability problems Conditional probability on tree diagram Mutually exclusive events Scatter diagram , lnear reationship Determinig linear reresion line equation and sums E(X) , Var (X) , E(ax) etc Use tables to find probalities	
30	19th-23rd March Revision and 2nd Term Test					
31	26th-30th March 2nd Term Test					
32	2nd - 6th April Paper correction and PTI					
33	9th - 13th April Vacation					
34	16th - 18th April Vacation					
35	Seminars					
36	GCE AS Exam					
37	GCE AS Exam					
38	GCE AS Exam					
39	GCE AS Exam					
41	GCE AS Exam					
42	GCE AS Exam					
43	GCE AS Exam					
44	GCE AS Exam					
45	PTI and Summer Vacation					

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