Sri Lankan School - Muscat

Sbuject : Mathematics - C34 & S1 **Teacher in Charge : M.A.M Illyas**

WEEK&Date	NO OF PERIODS	UNIT	TOPICS/ DETAILS	ILO	DATE OF COMPLETION	REMARKS
				To be able to:		
1	4	C3 - 1.1	Algebraic fractions	Simplify algebraic expressions by cancelling		
31.08-01.09				Common factors		
		C3 - 1.2		Multiply and divide fractions		
		C3 - 1.3		Add and substract fractions		
		C3 - 1.4		Apply remainder theorem to solve problems		
2	10	C3 - 2.1	Functions	Draw mapping diagrams for functions		
04.09-08.09		C3 - 2.2		Represent functions using function notation		
		C3 - 2.3		Define range and domain for a function		
		C3 - 2.4		Derive composite functions		
		C3 - 2.5		Derive inverse functions		
Week 3 11.09 - 15.09 **Eid Al Hada**						
4	10	C3 - 3.1	The exponential and Log functions	Sketch exponential functions in the form of		
18.09-22.09		C3 - 3.2		Solve problems involving exponential functions		
		C3 - 3.3		Derive inverse of exponential functions and solve problems involving		
5	10	C3 - 4.1	Numerical Methods	Find approximate roots of graphically		
25.10-29.10		C3 - 4.2		Apply iterative methods to find approximate roots		
		C3 - 5.1	Transforming graphs of functions	Sketch graphs of the modulus function		
6	8	C3 - 5.2		Skecth graphs of functions		
03.10-06.10		C3 - 5.3		Solve equations involving a modulus		
		C3 - 5.4		Skecth curves using a combinations of transformation		
		C3 - 5.5		Sketch transformations and labell coordinates of a given point		
7	10	C3 - 6.1	Trigonometry	Find sec θ, cosec θ and cot θ		
09.10-13.10		C3 - 6.2		Skecth graphs of sec θ, cosec θ and cot θ		

		C3 - 6.3		Simplify, prove and solve equations involving sec θ, cosec θ and cot θ		
		C3 - 6.4		Solve trigonometric equations using identities		
		C3 - 6.5		Solve problems involving inverse trigonometrical functions		
8	10	C3 - 7.1	Further trigonometric identities and their application	Solve problems using addition trigonometrical formulae		
16.10-20.10		C3 - 7.2		Solve problems using double angle trigonometrical formulae		
		C3 - 7.3		Prove identities using double angle formulae		
		C3 - 7.4		Solve trigonometrical problems using the form		
		C3 - 7.5		Apply factor furmulae to solve problems		
9	10	C3 - 8.1, 8.2 and 8.3	Differentiation	Differentiate using chain, product and quotient rule		
23.10-27.10						
		C3 - 8.4		Differentiate exponential functions		
10	8	C3 - 8.5		Find differential of logarithemic functions		
31.10-03.11		C3 - 8.6, 8.7 and 8.8		Differentiate sin x , cos x and tan x		
		C3 - 8.9		Differentiate further trigonometrical functions		
11	10	C3 - 8.1O		Differentiate functions formed by combination of trigonometrical, exponential and logarithmic and polynomial function		
06.11-10.11		C4 - 1.1	Partial fractions	Add and substract algebraic fractions		
		C4 - 1.2		Partial fractions when two linear factors in the dinominator		
		C4 - 1.3		Partial fractions when three or more linear factors in the dinominator		

12	10	C4 - 1.4		Partial fractions when repeated linear factors in the dinominator		
13.11-17.11						
		C4 - 1.5		Convert improper fractions in to partial fractions		
13	10	C4 - 2.1	Coordinate Geometry in the (x,y) plane	Sketch graph of a curve with parametric equation		
20.11-24.11		C4 - 2.2		Solve problems involving parametric equations		
		C4 - 2.3		Convert parametric equations into a cartesian equation		
		C4 - 2.4		Find area under the curve of a parametric equation		
14	10	C4 - 3.1	The binomial expansion	Expand for any constant n		
27.11-01.12		C4 - 3.2		Expand for any constants a, b and n		
		C4 - 3.3		Expand more complex fractional expressions using partial fractions		
Week 15 04.12-08.12 Revision & First Term Test						
Week 16 11.12-15.12 Revision & First Term Test						
Week 17 18.12 - 22.12 Paper Correction , Report Work and PTI						
Week 18 25.12-29.12 First Term Vacation						
Week 19 01.01.2017 - 05.01.2017 First Term Vacation						
20	10	C4 - 4.1	Differentiation	Differentiate functions given parametrically		
		C4 - 4.2		Differentiate functions which are implicit		
08.01-12.01		C4 - 4.3		Differentiate functions involving		
		C4 - 4.4		Solve problems involving rates of change		
		C4 - 4.5		Solve differential equations		
21	10	C4 - 5.1	Vectors	Write and draw vector diagrams		
15.01-19.01		C4 - 5.2		Perform simple vector arithmetic		
		C4 - 5.3		Describe the position of a point in 2 or 3 dimensions using vectors		
		C4 - 5.4		Write cartesian components of a vector in 2 dimensions		

		C4 - 5.5		Write cartesian components of a vector in 3 dimensions		
22	10	C4 - 5.6		Solve problems involving 3 dimensions		
22.01-26.01		C4 - 5.7		Find the angle between two vectors using the scalar product of two vectors		
		C4 - 5.8		Write the equation of a straight line in vector form		
		C4 - 5.9		Determine whether two given straight lines intersect		
		C4 - 5.1O		Find the angle between two straight lines		
23	6	C4 - 6.1	Integration	Integrate standard functions		
29.01-02.02		C4 - 6.2		Integrate using the reverse chain rule		
		C4 - 6.3		Integrate trigonometric identities		
24	10	C4 - 6.4		Integrate using partial fractions		
05.02-09.02		C4 - 6.5		Integrate expressions using standard patterns		
		C4 - 6.6		Integrate using substitution		
		C4 - 6.7		Integrate by parts		
		C4 - 6.8		Integrate using Trapezium rule		
		C4 - 6.9		Find areas and volumes using integration		
25	10	C4 - 6.1O and 6.11		Solve differential equations using integration		
12.02-16.02		S1- 1	Mathematical models inprobability and statistics	Find the proess of mathe,atical modelling , Find the stages of the moelling process		
		S1- ch 2	Representation and summary of data-location	*Recognise different types of data.*Find the mean,mode and median for discrete data presented as		

		S1-ch 3	Representation and summary of data-measures of dispersion.	*Find the quartiles,range,interquartile range,verience 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 cording to make calculations of measures of dispersion simpler.		
26	10	3.2				
19.02-23.02		3.3				
		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.		
27	10	S1 -ch 5	Probability	*Solve simple probability questions.*use set notation and Venn diagrams to solve probability problems with two or three events.*Use given formulae to find probabilities.*Apply mutually exclusive and independent events including sampling with and without replacement.*Find probabilities using arrangements.		
26.02-02.03		S1- 5	Probability	Solving probability problems		
				Conditional probability on tree diagram		
				Mutually exclusive events		
		-6	Coorelation	Scatter diagram , lnear realtionship		
		-7	Regression	Determinig linear reression line equation and sums		
		-8	Discrete random variables	E(X) , Var (X) , E(ax) etc		
28	8	-9	The Normal distribution	Use tables to find probalities		
05.03-09.03						

29	10					
12.03-16.03						
Week 30 19.03-23.03 Revision & Second Term Test						
Week 31 26.03- 30.03 Second Term Test & Paper Corection						
Week 32 02.04- 06.04 Paper Correction , Report Work & PTI						
Week 33 09.04 - 13.04 Second Term Vacation						
Week 34 16.04- 20.04 End of Vacation & School Reopen						
Week 35 23.04 -27.04 Revision						
Week 36 30.04 - 04.05 Seminar						
Week 37 07.05 - 11.05 Edexcel Exam						
Week 38 14.05 -18.05 Edexcel Exam						
Week 39 21.05 -25.05 Edexcel Exam						
Week40 28.05 -01.06 Edexcel Exam						
Week41 04.06 - 08.06 Edexcel Exam						
Week42 11.06 -15.06 Edexcel Exam						
Week43 18.06 -22.06 Edexcel Exam						
Week44 25.06 - 29.06 Edexcel Exam						
Week45 02.07 - 06.07 PTI & End of the Acedemic Year						