



Scheme of Work

Unit 05a : Mathematics 1
Academic year : 2005 /2006

Week 1 24 Sept- 29 Sept 2005	Lecture Topic :	Basics I: Arithmetic/Algebra Sets of Numbers,Order of operations,Exponents, square roots, absolute values, polynomials, Factoring.
	Tutoring Session	Tutoring Sheet 1 Solution: Problems 1-2-3-4-5-6.
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 13– 23 Handout 1
Week 2 2 Oct- 6 Oct 2005	Lecture Topic :	Basics II: Equations in one unknown, involving Absolute value, involving square roots, Quadratic equations, BI-quadratic equations, Higher equations, Simultaneous equations in two Unknowns.
	Tutoring Session	Tutoring Sheet 2 Solution: Problems 1-2
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 13 – 23 Handout 2
Week 3 8 Oct- 13 Oct 2005	Lecture Topic :	Basics III: Graphing of a straight line ,Quadratic curves graphs.
	Tutoring Session	Tutoring Sheet 3 Solution: Problems 1-2-3-4-5
	Reading	http://www.mathyards.com/lse Lessons Anthony & Biggs pp: 13 – 23 Handout 3
Week 4 8 Oct- 13 Oct 2005	Lecture Topic :	Basics IV : Logarithms/Exponential functions Logarithms Definition,forms,properties. Exponential Definition,forms,properties. Logarithmic/Exponential Equations
	Tutoring Session	Tutoring Sheet 4 Solution: Problems 1-2-3-4-5
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 13 – 23 Handout 4

<u>Week 5</u> 15 Oct- 20 Oct 2005	Lecture Topic :	Basics V : Trigonometric functions Definitions,properties,graphs
	Tutoring Session	Tutoring Sheet 5 Solution: Problems 1-2-3-4-5
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 13 – 23 Handout 5

<u>Week 6</u> 15 Oct- 20 Oct 2005	Lecture Topic :	Economic Models : Market model, Market equilibrium, Demand and supply functions, Cost Function, Revenue function, Profit function, Break even point.
	Tutoring Session	Tutoring Sheet 6 Solution: Problems 1-2-3-4-5-6-7-8-9
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 1 – 11 Handout 6

<u>Week 7</u> 15 Oct- 20 Oct 2005	Lecture Topic :	Revision : Basics I,II,III,IV,V
	Tutoring Session	Tutoring Sheets 1- 6 Solution:
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 1 – 23 Handout 1,2,3,4,5, 6

<u>Week 8</u> 28 Oct- 3 Nov 2005 Eid & Diwali Break		
		
		

<u>Week 9</u> 12 Nov- 17 Nov. 2005	Lecture Topic :	Assignment #1
	Tutoring Session	Assignment #1 Solution
	Reading	

<u>Week 10</u> 19 Nov- 24 Nov 2005	Lecture Topic :	Differentiation 1 : Meaning of a derivative,differentiation rules:sum,product and quotient,chain rule.
	Tutoring Session	Tutoring Sheet7 Solution Problem 1:a,b,c,d,e,j,m
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 67 – 79 Handout 7

<u>Week 11</u> 26 Nov- 30 Nov 2005	Lecture Topic :	Differentiation 2: Derivatives of Logarithmic, Exponential and Trigonometric functions.
	Tutoring Session	Tutoring Sheet 7 Solution Problem 1:f,g,h,I,k,l,m,n ; Problems: 2 , 3
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 67 – 79 Handout 7

<u>Week 12</u> 4 Dec –8 Dec 2005	Lecture Topic :	Maximization
	Tutoring Session	Tutoring Sheet 8 Solution Problems: 1,2,4-a,5-a
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 81 - 93 Handout 8

<u>Week 13</u> 10 Dec - 15 Dec. 2005 Assignment #3 Take Home Due Date Dec. 26 2005	Lecture Topic :	Assignment #2
	Tutoring Session	Assignment #2 Solution
	Reading	Assignment #2 solution : http://www.mathyards.com/lse/mb/page5.html

<u>Week 14</u> 17 Dec - 22 Dec 2005	Lecture Topic :	Economic applications of the derivative: marginal and profit maximisation. Tutoring Sheet 9 - Problems: 3 , 4-b , 5-b
	Tutoring Session	Tutoring Sheet 9 Solution
	Reading	http://www.mathyards.com/lse/mb Lessons Anthony & Biggs pp: 95 – 103 Handout 9

<u>Week 15</u> 24 Dec – 29 Dec 2005	Lecture Topic :	Mid Term Exams
	Tutoring Session	
	Reading	

<u>Weeks 16,17</u> 1 Jan – 14 Jan 2006	Lecture Topic :	BREAK
	Tutoring Session	
	Reading	