



Uva Wellassa University
Faculty of Management



Degree of Bachelor of Business Management in Entrepreneurship and Management
3rd YEAR 1st SEMESTER EXAMINATION – MARCH/APRIL 2013

EMG 333-2 Computational Finance

PART C-ESSAY

Select any two questions including question no - 01

1.
 - a. At what interest rate convertible semiannually would an investment of \$100 immediately and \$200 three years from now accumulate to \$500 ten years from now? Use the bisection method.(Use five iterations)
 - b. Rework the above example using Newton- Raphson Method.
(15 ×2=30 marks)
2. Obtain an estimate of $e^{0.826}$ using linear interpolation technique and quadratic interpolation technique. Compare results.
(20 marks)
3. Using secant method calculate the roots of following function $f(x)=x^6-x-1$. Use your own initial guess and conduct three iterations.
(20 marks)
4. Construct the cubic Lagrange interpolation polynomial which interpolates the function $f(x)$ given by the following table of values:

i	0	1	2	3
x_i	1	2	3	4
f_i	1.54	0.58	0.01	0.35

(20 marks)
(Total 50 marks)