Final Exam Information
The exam will be in class, Tuesday, August 6th 10:30AM 12.45 PM.

This time you are allowed to use BOTH SIDES of a small note-card (5 by 3 inches). Please note that you are allowed to write formulas only; and please do NOT write examples.

The final exam is a comprehensive one. I am going to review the materials and discuss few examples on Monday, August 5th.

- **Mean-Value Theorem, Intermediate Value Theorem, and Taylor's Theorem with remainder (Chapter 1)**
- **Bisection method, Fixed-point iteration technique, and Newton and Secant methods (2.1-2.3)**
- **Lagrange polynomial interpolation and Cubic Splines (3.1-3.2)**
- **Numerical Differentiation**
- **Numerical Integration (Non-composite and Composite techniques)**
- **Elementary Theory of Initial Value Problems: Finding the Lipzchitz constant, Existence and Uniqueness Theorem (5.1)**
- **Euler's method including the maximum error analysis (5.2)**
- **Higher order Taylor methods (5.3)**
- **Runge-Kutta methods: Modified-Euler and RK4 (5.4)**
- **Solving system of linear Equations (6.2)**
- **Jacobi method (6.3)**
- **Heat equation Problem (7.1)**
- **One MATLAB problem.**