

**MATH 112C, COURSE CODE 44510**

**NAME:** \_\_\_\_\_

**EXAM PRACTICE FINAL**

**ID:** \_\_\_\_\_

**DISCUSSION SESSION** \_\_\_\_\_

**DATE:** \_\_\_\_\_

Please **Note that you have to review all your lecture notes and homework before working on the practice final. I will not give answers to the practice final problems because they are all from your homework, lecture notes and textbook.**

**Question 1.**

Weinberger's book: page 131, problem 3, 9.

**Question 2.**

Review the lecture notes and derive the Green function for Poisson Eq. in a disk. page 140, problem 1, 2, 4.

**Question 3.**

Review the lecture notes and understand how to derive the solution to a PDE using the Green function.

**Question 4.**

Review the lecture notes on Fourier and Laplace transform and make sure you understand all examples I demonstrated in class.

**Question 5.**

Know how to solve a PDE in higher dimension using the method of separation of variables. make sure you understand how to derive and solve the associated special functions. page 148, problem 1, 2, 4, 5, 6