Dawson College: **Calculus II**: 201-NYB-05-S3: Fall 2010

Name: _____
Student ID: _____

Quiz 9

This quiz is graded out of 15 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §7.1 #10 *(5 marks)* Sketch the region enclosed by the given curves. Then find the area of the region.

$y = x^2,\ y = 4x - x^2$

Question 2. §6.6 #20 *(5 marks)* Determine whether the integral is convergent or divergent. Evaluate if convergent.

$$\int_1^\infty \frac{\ln x}{x^3} dx$$

Question 3. §7.2 #7 *(5 marks)* Find the volume of the solid obtained by rotating the region bounded by the given curves about the specified line.

$y^2 = x,\ \ x = 2y;$ about the y-axis