

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

## Quiz 8

This quiz is graded out of 10 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.** (5 marks) §3.7 #21 Find the limit.

$$\lim_{x \rightarrow 0^+} \sqrt{x} \ln x$$

**Question 2.** (5 marks) §3.7 #33 Find the limit.

$$\lim_{x \rightarrow 0} (1 - 2x)^{\frac{1}{x}}$$

**Question 3.** (5 marks) Evaluate the integral.

$$\int_{\sqrt[3]{5\pi/6}}^{\sqrt[3]{3\pi/4}} x^2 \sec(\pi - x^3) \tan(\pi - x^3) dx$$