

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

## Quiz 6

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.** §7.5 #25

An open tank has the shape of a right circular cone. The tank is 4 meters across the top and 6 meters high. How much work is done in emptying the tank by pumping the water over the top edge? ( $\rho = 1000 \frac{\text{kg}}{\text{m}^3}$  and  $g = 9.8 \frac{\text{m}^2}{\text{s}}$ )