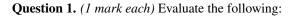**Name:** _____

Student ID: _____

Quiz 2

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. *(1 mark each)* Evaluate the following:

a.

$$\int \frac{1}{x^{2/5}}\,dx$$

b.

$$\int \sec x\,dx$$

c.

$$\int \cot x\,dx$$

d.

$$\int \frac{1}{x\sqrt{x^2-5}}\,dx$$

e.

$$\int \frac{1}{\sqrt{\pi-x^2}}\,dx$$

f.

$$\int \sin x\,dx$$

Question 2. *(4 marks)* §4.7 #30 Find a function f such that $f'(x) = x^3$ and the line $x+y=0$ is tangent to the graph of f.