

**King Fahd University of Petroleum and Minerals**  
**Department of Mathematics and Statistics**  
**Math 102 - Quiz 2**

Name:

Student ID #:

**Question 1.** Evaluate the definite integral  $\int_0^2 x^2 \sin(x^3) dx$ .

**Question 2.** Evaluate the indefinite integral  $\int \frac{x^2}{\sqrt{x+1}} dx$ .

**QUESTION 3 IS ON THE BACK OF THE PAGE.**

**Question 3.** Find the total distance travelled by the particle that moves on a straight line by the velocity  $v(t) = t^2 - 2t - 8$  on the time interval  $2 \leq t \leq 5$ .