King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 201 - Quiz 5

Name:
Student ID #:

Question 1. Find the critical points of $f(x, y) = x^3 + xy + y^3$ and use the second derivative test to determine whether they are local minima, local maxima, or saddle point.

QUESTION 2 IS ON THE BACK OF THE PAGE.

Question 2. Find the maximum and the minimum of $f(x, y) = x^2y + x + y$ subject to the constraint $xy = 4$.