KFUPM – Department of Mathematics & Statistics
MATH201 – Term 171
Quiz **5A** (Duration: 25 Minutes)

Name: _____ ID #: _____Section #: _____

Question 1: [5 *pts***]** Find local maximum and minimum values, and saddle point(s) of
$f(x, y) = y^3 - 3y + 3x^2y$

Question 2: [5 *pts***]** Use Lagrange Multiplier to find extreme values of $F(x, y, z) = y + 2z$ on the curve of intersection of the plane $x + y + z = -1$ and the cylinder circle $x^2 + z^2 = 4$.