KFUPM Term (142) Name_____Serial#_____

MATH 201 Quiz # 4(a) ID#_____ Section 9

Time: 20 Minutes Marks : /8

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1) Find absolute maximum and minimum values of $f(x,y) = xy - x^3y^2$ over the region $R = \{(x,y): 0 \le x \le 1, 0 \le y \le 1\}$.

2) Use Lagrange multiplier method to find 3 positive numbers whose sum is 99 and product is maximum.

KFUPM Term (142) Name_____Serial#_____

MATH 201 Quiz # 4(b) ID#_____ Section 9

Time: 20 Minutes Marks: /8

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1) Find distance from the cone $z = \sqrt{x^2 + y^2}$ to the point $(-6,4,0)$.

2) Use Lagrange multipliers to find 3 positive numbers whose sum is 100 and product is maximum.