KFUPM--Term 152

Math 201 Quiz 4(a) Time: 20 minutes Date: 19-4-2016

Name	ID	Sr	Sec	Marks:- /8

Q 1. Find all the local maxima, local minima and saddle points of $f(x,y) = e^x(x^2 - y^2)$.

Q2. Use Lagrange Multipliers Method to find the greatest and smallest values of the function $f(x,y) = xy$ on the ellipse $\frac{x^2}{4} + \frac{y^2}{2}$=1.

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Math 201 Quiz 4(b) Time: 20 minutes Date: 19-4-2016

Name	ID #	Sr #	Sec.	Marks:- /8

Q 1. Find all the local maxima, local minima and saddle points of $f(x,y) = x^3 - y^3 - 2xy + 6$.

Q2. Use Lagrange Multipliers Method to find the greatest and smallest values of the function $f(x,y) = xy$ on the ellipse $\frac{x^2}{8} + \frac{y^2}{2}$=1.

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Math 201 Quiz 4(c) Time: 20 minutes Date: 19-4-2016

Name	ID #	Sr #	Section #	Marks:- /8

Q 1. Find all the critical points of $f(x,y) = 2x + 2y - x^2 - y^2$ on the closed triangular region bounded by the lines $x = 0, y = 0 \; and \; y = 5 - x$.

Q2. Use Lagrange Multipliers Method to find the greatest and smallest values of the function $f(x,y) = xy$ on the circle $x^2 + y^2 = 1$.

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Math 201 Quiz 4(d) Time: 20 minutes Date: 19-4-2016

Name	ID	Sr	Sec	Marks:- /8

Q 1. Find all the critical points of $f(x,y) = 1 + 2x + 2y - x^2 - y^2$ on the closed triangular region bounded by the lines $x = 0, y = 0 \; and \; y = 7 - x$.

Q2. Use Lagrange Multipliers Method to find the greatest and smallest values of the function $f(x,y) = 3x + 4y$ on the circle $x^2 + y^2 = 1$.