

KFUPM--Term 151

Math 201

Quiz # 3(a)

Time: 20 minutes

Date: 10-11-15

Name	ID	Sr	Sec	Marks:- /8
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Q 1. Evaluate $\lim_{(x,y) \rightarrow (2,1)} \frac{x^2 - 2xy}{x^2 - 4y^2}$, if it exists.

Q2. Find f_x and f_y as functions if $f(x, y) = \frac{y}{y + \cos x}$.

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Quiz # 3(b)

Time: 20 minutes

Date: 10-11-15

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Q 1. Show that $\lim_{(x,y) \rightarrow (0,0)} \frac{xy}{x^2+y^2}$ does not exist.

Q2. Find $\frac{\partial z}{\partial x}$ and $\frac{\partial z}{\partial y}$ at $(1, \ln 2, \ln 3)$ if $xe^y + ye^z + 2\ln x - 2 - 3\ln 2 = 0$.

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Quiz # 3(c)

Time: 20 minutes

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Q 1. Show that $\lim_{(x,y) \rightarrow (1,-1)} \frac{xy+1}{(x-y)(x+y)}$ does not exist.

Q2. Assume that $z = f\left(p, q^2, \frac{q}{p}\right)$, $\frac{\partial f(x,y)}{\partial x} = xy$, $\frac{\partial f(x,y)}{\partial y} = \frac{x^2}{2}$. Find $\frac{\partial z}{\partial p}$ and $\frac{\partial z}{\partial q}$.