KFUPM--Term 132(2014)

Math 201 Quiz # 3-a Time: 20 minutes Date: 8-4-14

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

Q 1. Find all the 1st order partial derivatives of $f(x,y,z) = \frac{x \sin xy}{z^2}$.

Q2. Find $\frac{\partial z}{\partial s}$ *and* $\frac{\partial z}{\partial t}$ for $z = e^{2r}\sin(3\theta)$, $r = st - t^2, \theta = \sqrt{s^2 + t^2}$.

FUPM-----Term 132(2014)

Math 201 Quiz # 3-b Time: 20 minutes Date: 8-4-14

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

Q 1. Calculate 2nd order partial derivatives of $f(x,y) = x\ \cos xy$.

Q2. For $f(x,y) = xe^{xy} + y$, find $D_{\vec{u}} f(2,0)$ in the direction of a unit vector $\vec{u}$ making an angle $\theta = \frac{2\pi}{3}$ with +ve x-axis.

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Math 201 Quiz # 3-c Time: 20 minutes Date: 8-4-14

Name	ID #	Sr #	Sec	Marks:- /8

Q 1. Verify the conclusion of Clairaut's Theorem for $f(x,y) = \frac{y}{x+y}$.

Q2. Find derivative of $f(x,y) = \sqrt{xy}$ at $P(2,4)$ in the direction of $Q(5,2)$.