KFUPM--Term 162

Math 201 Quiz 3(a) Time: 20 minutes Date: 16- 4- 17

Name	ID	Sr	Sec. 07	Marks:- /7

Q 1. Find $\lim_{(x,y)\to(0,0)} \frac{x^2+sin^2y}{2x^2+y^2}$, if it exists, or show that limit does not exist.

Q2. If $f(x,y) = \sin\left(\frac{y}{1+x}\right)$, then calculate $\frac{\partial f}{\partial x}$ and $\frac{\partial f}{\partial y}$.

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Math 201 Quiz 3(b) Time: 20 minutes Date: 16- 4- 17

Name	ID	Sr	Sec.07	Marks:- /7

Q 1. Find $\lim_{(x,y)\to(0,0)} \frac{x^2 y e^y}{x^4+4y^2}$, if it exists, or show that limit does not exist.

Q2. Verify that the conclusion of Clairaut's Theorem holds for $f(x,y) = \cos(x^2 y)$.

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Math 201 Quiz 3(c) Time: 20 minutes Date: 16- 4- 17

Name	ID	Sr	Sec. 13	Marks: /7

Q 1. Find $\lim_{(x,y)\to(1,0)} \frac{xy-y}{(x-1)^2+y^2}$, if it exists, or show that limit does not exist.

Q2. Find the first partial derivatives of the function $f(x,y) = x^y$.

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Math 201 Quiz 3(d) Time: 20 minutes Date: 16- 4- 17

Name	ID	Sr	Sec.13	Marks:- /7

Q 1. Find $\lim_{(x,y)\to(0,0)} \frac{x^2+y^2}{\sqrt{x^2+y^2+1}-1}$, if it exists, or show that limit does not exist.

Q2. For $f(x,y) = \ln(x+2y)$, check whether $f_{xy}(x,y) = f_{yx}(x,y)$ holds.