KFUPM--T172

Math 201 Quiz 4(a) Time: 20 minutes Date: 1- 4- 2018

Name	ID	Sr	Sec.6	Marks(6):-

Q 1. Find $\lim_{(x,y)\to(0,0)} \frac{x-y+2\sqrt{x}-2\sqrt{y}}{\sqrt{x}-\sqrt{y}}$ if it exists.

Q2. Find an equation of tangent plane to the surface $z = \tan^{-1}(xy^2)$ at the point $P(1,1,e)$.

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Math 201 Quiz 4(b) Time: 20 minutes Date: 1- 4- 2018

Name	ID	Sr	Sec.6	Marks(6):-

Q 1. Find $\lim_{(x,y)\to(2,0)} \frac{\sqrt{2x-y}-2}{2x-y-4}$ if it exists.

Q2. Explain the function $f(x,y) = y + \sin\left(x/y\right)$ is differentiable at (0,3). Also find linearization of $f(x,y)$ at (0,3).

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Math 201 Quiz 4(c) Time: 20 minutes Date: 1- 4- 2018

Name	ID	Sr	Sec.8	Marks(6):-

Q 1. Find $\lim_{(x,y)\to(4,3)} \frac{\sqrt{x}-\sqrt{y+1}}{x-y-1}$ if it exists.

Q2. Find an equation of tangent plane to the surface $z = x\sin(x+y)$ at the point $P(-1,1,0)$.

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Math 201 Quiz 4(d) Time: 20 minutes Date: 1- 4- 2018

Name	ID	Sr	Sec.8	Marks(6):-

Q 1. Find $\lim_{(x,y)\to(2,-4)} \frac{y+4}{x^2y-xy+4x^2-4x}$ if it exists.

Q2. Explain the function $f(x,y) = \frac{2x+3}{4y+1}$ is differentiable at $(0,0)$. Also find linearization of $f(x,y)$ at $(0,0)$.