KFUPM--Term 181

Math 201 Quiz # 3(a) Time: 20 minutes Date: 1-11-2018

Name	ID #	Sr #	Sec.	Marks(15):-

Q 1. (i) Find an equation of a line L passing through the point $P(2,2,2)$ and parallel to the vector $\langle 1,-1,2\rangle$. (ii) Also find the distance from the point $Q(1,1,5)$ to the line L obtained in Part(i).

Q2. Graph $f(x,y) = 100 - x^2 - y^2$. Also plot the level curve $f(x,y) = 51$.

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Math 201 Quiz # 3(b) Time: 20 minutes Date: 1-11-2018

Name	ID #	Sr #	Sec. 09	Marks(15):-

Q 1. (i) Find an equation of the plane P through $A(0,0,1), B(2,0,0)\ and\ C(0,3,0)$. (ii) Also find the distance from $Q(1,1,3)$ to the plane P obtained in Part(i).

Q2. Find an equation of level curve of $f(x,y) = \sqrt{x + y^2 - 3}$ that passes through the point $P(3,-1)$. Also sketch this level curve.

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Math 201 Quiz # 3(c) Time: 20 minutes Date: 1-11-2018

Name	ID #	Sr #	Sec. 13	Marks(15):-

Q 1. Let L1: $x = y - 1 = \frac{z-2}{3}$ and L2: $\frac{x-2}{2} = \frac{y-3}{-2} = \frac{z}{7}$. Determine whether L1 and L2 are skew or not.

Q2. Find an equation of level curve of $f(x, y) = 16 - x^2 - y^2$ that passes through the point $P\left(2\sqrt{2}, \sqrt{2}\right)$. Also sketch this level curve.

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Math 201 Quiz # 3(d) Time: 20 minutes Date: 1-11-2018

Name	ID #	Sr #	Sec. 13	Marks(15):-

Q 1. Find parametric equation for the line of intersection of the planes P1: $x + y + z = 1$ and P2: $x + 2y + 2z = 1$. Also find the angle between P1 and P2.

Q2. Find and sketch the domain of $f(x, y) = \cos^{-1}(y - x^2)$.