KFUPM--Term 171

Math 201 Quiz # 1(a) Time: 20 minutes Date: 10-10-2017

Name	ID #	Sr #	Sec.	Marks:- $/_6$

Q 1. Find the area of surface generated by revolving the parametric curve C: $x = ln(\sec t + \tan t) - \sin t$, $y = \cos t\,;\ 0 \le t \le \pi/3,$ about x- axis.

Q2. Sketch the polar curve: $r^2 = 4\ cos\theta$.

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Math 201 Quiz # 1(b) Time: 20 minutes Date: 10-10-2017

Name	ID #	Sr #	Sec.	Marks:- $/_6$

Q 1. Find the length of the parametric curve C : $x = ln(\sec t + \tan t) - \sin t,\ y = \cos t\,;\ 0 \le t \le \pi/3.$

Q2. Graph the set of points whose polar coordinates (r, θ) satisfy the conditions:

(i) $\theta = -\frac{\pi}{4},\ 0 \le r \le 3$ (ii) $\frac{\pi}{3} \le \theta \le \frac{2\pi}{3},\ -2 \le r \le 0$ (iii) $0 \le \theta \le \frac{\pi}{3},\ r \le 1.$

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Math 201 Quiz # 1(c) Time: 20 minutes Date: 10-10-2017

Name	ID #	Sr #	Sec.	Marks:- $/_6$

Q1 Find the slope of the curve C: $x^3 + 2t^2 = 9,\ \ 2y^3 - 3t^2 = 4 \quad at\ t = 2.$

Q2. Sketch the polar curve $r = -2\sin\theta$. Is the curve symmetric about axes?

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Math 201 Quiz # 1(d) Time: 20 minutes Date: 10-10-2017

Name	ID #	Sr #	Sec.	Marks:- /6

Q 1. Find the area enclosed by the y-axis and the curve C: $x = t - t^2,\ y = 1 + e^{-t}$.

Q2. Replace the polar equation: $r \sin\left(\theta + \frac{\pi}{6}\right) = 1,$ by an equivalent Cartesian equation and sketch it.