KFUPM--Term 152

Math 201 Quiz # 1(a) Time: 20 minutes Date: 2-2-16

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

Q 1. Find a parametrization for the line through the point $(-5,5)$ having slope $\frac{5}{6}$.

Q2. Find the length of the curve C : $x = 8\cos t + 8t\sin t$, $y = 8\sin t - 8t\cos t$, $0 \le t \le \frac{\pi}{2}$.

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Math 201 Quiz # 1(b) Time: 20 minutes Date: 2-2-16

Name	ID	Sr #	Sec.	Marks:- $/_8$

Q 1. Convert the parametric equations

$$x = 2\sec t,\ y = 2\tan t,\quad -\frac{\pi}{2} < t < \frac{\pi}{2}$$

into Cartesian(rectangular) equation. Sketch the curve and indicate the direction in which it is traced.

Q2. Find an equation of the tangent line at $t = \pi$ for the curve

$$x\ \sin t + 2x = t,\qquad y = t\ \sin t - 2t.$$

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Math 201 Quiz # 1(c) Time: 20 minutes Date: 2-2-16

Name	ID #	Sr #	Sec.	Marks:- $/_8$

Q1 Find a parametrization for the line segment with endpoints $(-1,3)\ and\ (3,-2)$.

Q2. Find the area of the surface obtained by rotating the curve (about the x-axis)

$$x = \cos t\,, y = 2 + \sin t,\ 0 \le t \le 2\pi.$$

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Math 201 Quiz # 1(d) Time: 20 minutes Date: 2-2-16

Name	ID #	Sr #	Sec.	Marks:- $/_8$

Q 1. Convert the parametric equations

$$x = 4\sin t, \qquad y = 5\cos t, \qquad 0 \le t \le \pi$$

into Cartesian (rectangular) equation. Sketch the curve and indicate the direction in which it is traced.

Q2. Find $\frac{d^2y}{dx^2}$ at $t = 1$ when $x = t - t^2,\ y = t - t^3$.