KFUPM--Term 172

Math 201 Quiz # 1(a) Time: 20 minutes Date: 6-2-2018

Name	ID #	Sr #	Sec. 06	Marks:- $/_6$

Q1. Sketch the parametric curve C: $x = 1 - t^2,\ y = t - 2,\ -1 \le t \le 2$ and indicate the initial point, the terminal point and the direction in which C is traced as t increases. Also find the corresponding cartesian equation.

Q2. Find the length of the following parametric curve

$$x = ln(\sec t + \tan t) - \sin t,\ y = \cos t\,;\ \ 0 \le t \le \pi/3.$$

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Math 201 Quiz # 1(b) Time: 20 minutes Date: 6-2-2018

Name	ID #	Sr #	Sec.06	Marks:- $/_6$

Q 1. Sketch the parametric curve C: $x = -\sin t\,,\ y = \cos t,\ \frac{\pi}{4} \le t \le \frac{3\pi}{2}$ and indicate the initial point, the terminal point and the direction in which C is traced as t increases. Also find the corresponding cartesian equation

Q2. For which values of t, the parametric curve $x = t^3 - 12t, y = t^2 - 1$ is concave upward?

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Math 201 Quiz # 1(c) Time: 20 minutes Date: 6-2-2018

Name	ID #	Sr #	Sec. 08	Marks:- /6

Q1. Sketch the parametric curve C: $x = \sin 2t\,, y = \sin t - \cos t\,,\ \ 0 \le t \le \frac{3\pi}{4}$ and indicate the initial point, the terminal point and the direction in which C is traced as t increases. Also find the corresponding cartesian equation.

Q2. Find an equation of tangent line to the parametric curve $x = t^3 - 12t, y = t^2 - 1$ when $t = 1$.

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Math 201 Quiz # 1(d) Time: 20 minutes Date: 6-2-2018

Name	ID #	Sr #	Sec. 08	Marks:- $/_6$

Q 1. Sketch the parametric curve C: $x = 2\cos t, y = 1 + \sin t, \ \frac{3\pi}{2} \le t \le 2\pi.$ and indicate the initial point, the terminal point and the direction in which C is traced as t increases. Also find the corresponding cartesian equation.

Q2. Find area of the surface generated by revolving the curve: $x = \cos t, y = 1 + \sin t, \ (0 \le t \le \pi/2)$ about x- axis.