Math 201	Quiz # 1(a)	Time: 20 minutes		Date: 18-9-2018
Name	ID #	Sr #	Sec. 09	Marks:- /15

Q1. Sketch the parametric curve C: $x = 1 - t^2$, $y = t - 2$, $-1 \leq t \leq 2$ 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. The parametric curve is given by: $= t^3 - 12t$, $y = t^2 - 1$. Find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$. For which values of t is the curve concave upward?

Math 201	Quiz # 1(b)	Time: 20 minutes		Date: 18-9-2018
Name	ID #	Sr #	Sec. 09	Marks:- /15

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. The curve is given by: $x = t^3 - 3t$, $y = t^3 - 3t^2$. Find the points on the curve where the tangent is horizontal or vertical.

Math 201	Quiz # 1(c)	Time: 20 minutes		Date: 18-9-2018
Name	ID #	Sr #	Sec. 13	Marks:- /15

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 the exact length of the curve C: $x = 1 + 3t^2, y = 4 + 2t^3, \ 0 \le t \le 1$.

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: $x = 3t - t^3, y = 3t^2,$ $0 \le t \le 1,$ about y- axis.