

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math-201 Semester-121 QUIZ I

NAME:

S.No.

ID:

Maximum Marks: 10

Section:12

Time Allowed: 20 minutes

(1) Sketch the graph of the parametric equations  $x = t + 2, y = t^3 - 2t$  and mark the direction in which the curve is defined for  $-2 \leq t \leq 2$ . Also, eliminate the parameter  $t$  to find corresponding cartesian equation.

(2) Find the equation(s) of the tangent(s) to the curve  $x = t^5 - 4t^3, y = t^2$  that pass through the point  $(0, 4)$ .