

Department of Mathematics and Statistics, KFUPM

Math-101 Semester-151 QUIZ IV

NAME:

S.No.

ID:

Maximum Marks: 8

Section:

Time Allowed: 35 minutes

(1) Find  $\frac{dy}{dx}$ , if

(a)  $y = \sqrt{3x^2 + \sqrt{\sin^{-1}(x^2 - 1)}}$  (b)  $x^3 + y^3 - 9xy = 0$  (c)  $y = \log_3\left(\left(\frac{x+1}{x-1}\right)^{\ln 3}\right)$