

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-201 Semester-161 QUIZ IV

NAME:

Serial No.

ID:

Maximum Marks: 8

Section:23

Time Allowed: 30 minutes

(1) Find and sketch the domain of $f(x, y) = \frac{\sqrt{y^2 - x}}{\ln(4 - x^2 - y^2)}$.

(2) Use implicit differentiation to find $\frac{\partial z}{\partial x}$ if

$$xz = \ln(y + z).$$