## ING FAHD UNIVERSITY OF PETROLEUM AND MINERALS DEPARTMENT OF MATHEMATICS & STATISTICS MATH 201-05 Quiz # 3 April 12, 2010

NAME:

ID#:

## SHOW ALL YOUR WORK

1. Identify (2pts) and sketch (2pts) the surface  $y = \sqrt{1 + x^2 - z^2}$ .

2. (a) Change (2pts) (√3, π/3, -1) From cylindrical to spherical coordinates.
(b) Change the equation x = 3 into Spherical coordinates (2pts).

3. (2pts) Identify and sketch the surface  $r^2 = r$ .