

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math-201 Semester-143 QUIZ III

NAME:

S.No.

ID:

Maximum Marks: 10

Section:

Time Allowed: 40 minutes

- (1) Find the equation of a plane through the point  $(-1, 2, 1)$  and contains the line of intersection of the planes  $x + y - z = 2$  and  $2x - y + 3z = 1$ .
- (2) Find the distance from the plane  $x + 2y + 3z = 3$  to the plane  $3x + 6y + 9z = 30$ .
- (3) Name the boundary surfaces and sketch the solid given by the inequalities  
 $1 + x^2 + y^2 \leq z^2 \leq 4 - x^2 - y^2$ .