

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-302 Semester-162 QUIZ I

NAME:

S.No.

ID:

Maximum Marks: 10

Section:02

Time Allowed: 30 minutes

(1) Consider a subset of R^3 defined by

$$S = \{a = (a_1, 0, a_3) : a_1 + a_3 \geq 0\}. \text{ Is } S \text{ a subspace? (why?)}$$

(2) Consider the vector space

$$S = \{ \langle u, v, x, y \rangle : u + v + x = 0, y + 2u = v, u, v, x, y \in R \}.$$

Find a basis and the dimension of S.