

# QUIZ 10

(10MINS, 20PTS)

Please write down your name, SID, and solutions discernably.

Name :

SID :

Score :

1. (10pts) Evaluate the integral by making an appropriate change of variables.

$$\iint_R xy dA$$

, where  $R$  is the square with vertices  $(0, 0)$ ,  $(1, 1)$ ,  $(2, 0)$ , and  $(1, -1)$ .

2. (10pts) Evaluate the line integral

$$\int_C (x^2 + y^2 + z^2) ds$$

, where  $C : x = 3t, y = \cos 4t, z = \sin 4t, 0 \leq t \leq 2\pi$ .