

## Quiz 3

MAC 2313

Fall 2006

Full Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Show all of your work for full credit.**

1. Find the position vector of a particle that has acceleration  $\vec{a}(t) = \langle t, t^2, \cos(2t) \rangle$ , initial velocity  $\vec{v}(0) = \langle 1, 0, 1 \rangle$  and initial position  $\vec{r}(0) = \langle 0, 1, 0 \rangle$ .