Name: _____   Date: _____

QUIZ – SIGNIFICANT FIGURES

1. (16%) State the number of significant figures:

    a. 1.3412

    b. 0.0310

    c. 10.3

    d. 40.01

2. (16%) Round the number 12.354 to

    a. 1 significant figure: _____

    b. 2 significant figures _____

    c. 3 significant figures _____

    d. 4 significant figures _____

3. (10%) Write the number 966000 in with 2 significant figure

4. (10%) Write the number 0.000966 with 1 significant figure

5. (20%) The energy of an object is calculated by $E = \frac{1}{2}mv^2 + mgh$, where:
   g is the gravitational constant, g = 10 m/s^2
   h is the height of the object above the ground in meters.
   v is the speed of the object in m/s
   m is the mass of the object in kg

   Calculate the energy of a bird whose weight is 500g, flying 100m above ground in a speed of 12.5 m/s.

    a. (10%) Give the answer correct to 3 significant figures.

    b. (10%) Give the answer correct to 3 decimal places.

6. (28%) An airplane is flying in circles around an airport waiting for landing. If the radius of the circle he is flying in is 20km, find:

   a. (12%) The distance traveled after 2 complete rounds. Give the answer correct to 3 significant figures.
   b. (16%) 12km further away from the airport another airplane is also flying in circles waiting for its turn to land. Find the distance traveled by this airplane in 1 round. Give the answer correct to 3 decimal places.