CHEM 5 SPRING 2016 QUIZ 1 (CHP 1.8-1.9) NAME_____
15 pt JAN 22, 2016

1. (5 pt) Rewrite each of the following into decimal notation or scientific notation, which ever is called for.

   0.00309 expressed in scientific notation is _____

   3009.1 expressed in scientific notation is _____

   1268×10^4 expressed in correct scientific notation is_____

   3.01×10^{-3} expressed in correct decimal notation is_____

   9.91×10^5 expressed in correct decimal notation is_____

2. (1 pt) Which of the following numbers is (are) equivalent? 1) 1,470 2) 1.47×10^3 3) 147000×10^{-3}

   a) 1 and 2 b) 2 and 3 c) 1 and 3 d) none of them e) all of them

3. (1 pt) How many significant digits are indicated in 2300 kg? a) 2 b) 3 c) 4 d) 5

4. (2 pt) Perform the following mathematical operations. Express your answers to the correct number of significant figures.

   $(2.1 \times 10^6) \times (8.49 \times 10^{-11}) =$

   $\dfrac{(6.983 \times 10^3)}{(4 \times 10^{14})} =$

5. (1 pt) Which of the following performs the indicated mathematical operations and expresses the answer using the proper number of significant digits? 8.97 + 6.3214 + .9001 =

   a) 16.19 b) 16.2 c) 16.192 d) 16.1915

6. (4 pt) Classify each of the following as an exact (E) or inexact number (I) number.
   A) 7 railroad cars B) 12 dozen apples C) 14 gallons of gasoline D) The temperature is 93ºF

   _____ _____ _____ _____

7. (1 pt) Which one of the following numbers contains 4 significant figures?

A) 0.0257 B) 3090 C) 39.40 D) 92018 E) 6.43