Chem 1013 mini-quiz 3 Tuesday 6 Sept 2017 A

Your name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 6

 C

 12.011

 1)In the element card to the left, the `6’ represents \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 The 12.011 represents the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Boron (B) comes in two flavors and with the ~masses and % abundances listed

 below:

 Isotope ~Mass (amu) % abundance

 11B 11.0 81.0

  10B 10.0 19.0

What does an average B weigh in amu to the nearest 0.1? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_amu

(show work below) 3 pts

Chem 1013 mini-quiz 3 Tuesday 6 Sept 2017 B

Your name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the difference between mass number and average atomic mass for an element?

 C

1. In the element card shown here, indicate with an arrow where the average

atomic mass for **C** appears.

 3) Chlorine (Cl) comes in two flavors and with the ~masses and % abundances listed below:

 Isotope ~Mass (amu) % abundance

 35Cl 35.0 75.8

 37Cl 37.0 24.2

What does an average Cl weigh in amu to the nearest 0.1? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_amu

(show work below) 3 pts

Chem 1013 mini-quiz 3 Tuesday 6 Sept 2017 C

Your name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The fact that the average mass of any element is not a whole number reflects the presence of several different\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for each element
2. Silicon (Si) has three flavors with the exact masses and % abundance listed below. Calculate to the nearest 0.01 amu, what the average atomic mass of Si is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ amu (show work)

Si flavor exact mass % abundance

28Si 27.98 92.2

29Si 28.98 4.8

30Si 29.97 3.0