**Science 10 – Bohr/Rutherford Assignment – TOTAL VALUE 90**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: March 26, 2019 DUE: March 28/19**

1. **For each element below use the periodic table to fill in each chart below (symbol, Bohr-Rutherford diagram** (showing value or number of the proton, neutron, and electron number), and ionic charge AS SHOWN BELOW. (15 points each) **Value 90**

**EXAMPLE:**

|  |  |
| --- | --- |
| **Element: Carbon** | |
| Symbol: **C** | Bohr/Rutherford Diagram |
| Atomic Number: **6** | E:\c-atom_e.gif |
| Atomic Mass Number: **12** |
| Protons: **6** |
| Electrons: **6** |
| Neutrons: **12 – 6 = 6** |
| Ionic charge = **negative 4 or** **4-**  Symbol/Charge: **C4-** |

**(a)**

|  |  |
| --- | --- |
| **Element: Potassium** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_ |

**(b)**

|  |  |
| --- | --- |
| **Element: Silicon** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_ |

**(c)**

|  |  |
| --- | --- |
| **Element: Nitrogen** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_ |

**(d)**

|  |  |
| --- | --- |
| **Element: Sulfur** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_ |

**(e)**

|  |  |
| --- | --- |
| **Element: Neon** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_ |

**(f)**

|  |  |
| --- | --- |
| **Element: Scandium** | |
| Symbol: **\_\_\_\_\_\_\_** | Bohr/Rutherford Diagram |
| Atomic Number: **\_\_\_\_\_\_** |  |
| Atomic Mass Number: **\_\_\_\_\_\_** |
| Protons: **\_\_\_\_\_** |
| Electrons: **\_\_\_\_\_\_** |
| Neutrons: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Ionic charge = **\_\_\_\_\_\_\_\_\_\_**  Symbol/Charge: \_\_\_\_\_\_\_\_\_\_\_ |