1) Fix the chemical formulae and write the proper chemical name of the ionic compound.

(2 marks each)

|  |  |  |
| --- | --- | --- |
|  | Corrected chemical formula | Proper chemical name |
| a) Mg2(CH3COO)0 |  |  |
| b) Ba(OH) |  |  |
| c) Be2N3 |  |  |
| d) Mo(NO2)for Mo3+ |  |  |
| e) Al(SO4) |  |  |
| f) Ca2Se2 |  |  |

2) Draw the Bohr diagrams for the following (4 marks each):

a) N

|  |
| --- |
|  |

b) Ca2+

|  |
| --- |
|  |

3) Why are elements the halogen family (F, Cl, Br, I, and Ar) highly reactive. Refer to their valence electrons in your answer. (2 marks)

4) The difference between the Atomic Mass (rounded up/down) and the Atomic Number gives

you the element's number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_? (1 mark)

5) Is wood burning a physical or chemical change? Would this be an exothermic or endothermic reaction? Justify your responses (4 marks).

Bonus Question:

The reactivity of the halogens decreases as you move down the column. Based on what you know about valence shells and energy levels, why do halogens behave this way? (2 marks)