

Electron Configuration Practice

Name: _____

Complete the following with full electron configuration

	Symbol	# of valence e ⁻	Full electron configuration
1.	Mg		
2.	P		
3.	V		
4.	Ge		
5.	Kr		
6.	O		

PART B – SHORTHAND ELECTRON CONFIGURATION

Use the patterns within the periodic table to write the shorthand electron configurations for the following elements.

	Symbol	# e ⁻	Shorthand Electron Configuration
7.	Ca		
8.	Pb		

9.	F		
10	U		

PART B – RULES OF ELECTRON CONFIGURATIONS

Which of the following “rules” is being violated in each electron configuration below? Explain your answer for each. **Hund’s Rule, Pauli Exclusion Principle, Aufbau Principle**

11	$\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\underline{\quad}$ $\underline{\quad}$ 1s 2s 2p
12	$\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\underline{\quad}$ $\uparrow\downarrow$ \uparrow \uparrow 1s 2s 2p 3s 3p
13	$\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\uparrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ \uparrow 1s 2s 2p 3s 3p
14	$\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ $\uparrow\downarrow$ 1s 2s 2p 3s 3p 3d