

Name: _____

GROUP QUIZ UNIT 04

NAMES _____

ANSWER KEY

(2 points each)

- | | | | | |
|--------------------------|-------------|--------------|--------------|--------------|
| 1. A <u>A</u> | 5. <u>B</u> | 9. <u>A</u> | 13. <u>B</u> | 17. <u>B</u> |
| 2. A <u>A</u> | 6. <u>C</u> | 10. <u>D</u> | 14. <u>B</u> | 18. <u>B</u> |
| 3. <u>D</u> | 7. <u>C</u> | 11. <u>B</u> | 15. <u>A</u> | 19. <u>D</u> |
| 4. <u>C</u> | 8. <u>B</u> | 12. <u>C</u> | 16. <u>A</u> | |

20. $\text{nm} \rightarrow \text{m}$

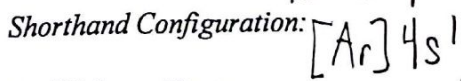
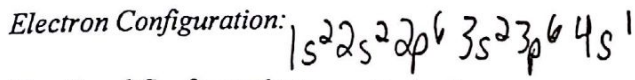
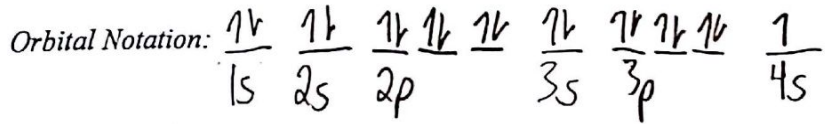
$$\lambda = 726 \text{ nm} \cdot \frac{1 \text{ m}}{1 \times 10^9 \text{ nm}} = 7.26 \times 10^{-7} \text{ m}$$

$$\left\{ \begin{array}{l} v = ? \text{ Hz} \\ c = \lambda v \end{array} \right\} \left\{ \begin{array}{l} 3.00 \times 10^8 = (7.26 \times 10^{-7}) v \\ v = \frac{3.00 \times 10^8}{7.26 \times 10^{-7}} \end{array} \right\} \left\{ \begin{array}{l} v = 4.13 \times 10^{14} \text{ Hz} \end{array} \right.$$

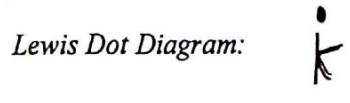
21. $E = ? \text{ J}$

$$\left\{ \begin{array}{l} c = \lambda v \\ 3.00 \times 10^8 = (5.20 \times 10^{-7}) v \\ v = 5.77 \times 10^{14} \text{ Hz} \end{array} \right\} \left\{ \begin{array}{l} E = h v \\ E = (6.63 \times 10^{-34}) (5.77 \times 10^{14}) \end{array} \right\} \left\{ \begin{array}{l} E = 3.83 \times 10^{-19} \text{ J} \end{array} \right.$$

22. Fill out the following below on your answer sheet for the atom POTASSIUM (4 points each) $\rightarrow K = 19 e^-$

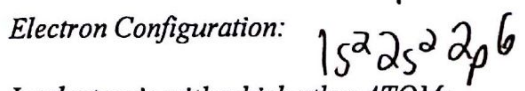
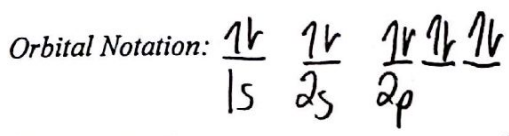


of Valence Electrons: 1



Ion formed: K^+

23. Fill out the following below on your answer sheet for the anion F^- (4 points each) $\rightarrow 10 e^-$



Isoelectronic with which other ATOM: Ne (neon)

Name:

22. Fill out the following below on your answer sheet for the **ATOM POTASSIUM** (4 points each):

Orbital Notation:

Electron Configuration:

Shorthand Configuration:

of Valence Electrons:

Lewis Dot Diagram:

Ion formed:

23. Fill out the following below on your answer sheet for the **ION F^{-1}** (4 points each):

Orbital Notation:

Electron Configuration:

Isoelectronic with which other ATOM: