

Name _____

Unit 2-6: Electron Configurations

For each of the following write the electron configuration:

Ex. Al = $13e^-$ $1s^2 2s^2 2p^6 3s^2 3p^1$

- 1) O
- 2) Mg
- 3) Ar
- 4) K
- 5) Zn
- 6) Br
- 7) Ag
- 8) Ra
- 9) U

For each of the following tell what element it is:

- 10) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^8$
- 11) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^{10} 6p^3$
- 12) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^1$
- 13) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^1$
- 14) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^{10} 6p^6 7s^2 5f^{11}$
- 15) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^4$

For each of the following, give only the last term of the electron configuration:

- 16) Be
- 17) Ni
- 18) Xe
- 19) Rb
- 20) Mo
- 21) W
- 22) Ga

For each of the following electron configurations, tell whether they are in an excited state:

- 23) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^8$
- 24) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2$
- 25) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^8 4p^6 5s^2 4d^{10} 5p^5$
- 26) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^6 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{10}$
- 27) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1$