**Atoms: Electronic Configuration (BEG): Quiz 3a**

Please show work where necessary!

/5

*In the space below, write the expanded electron configurations of the following elements:*

1. Potassium: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Oxygen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 1s22s22p63s23p64s2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 1s22s22p63s23p64s23d104p6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. 1s22s22p63s23p64s23d104p65s24d105p66s24f8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answers:

1. potassium **1s22s22p63s23p64s1**
2. oxygen **1s22s22p4**
3. 1s22s22p63s23p64s2 **calcium**
4. 1s22s22p63s23p64s23d104p6 **krypton**
5. 1s22s22p63s23p64s23d104p65s24d105p66s24f8 **gadolinium**