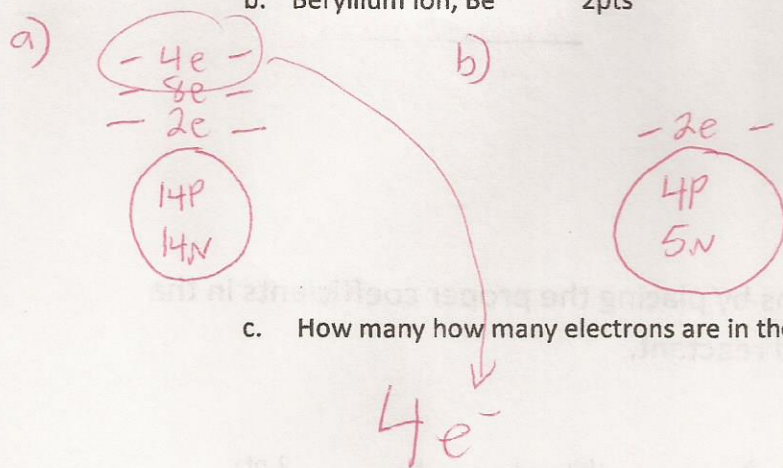


Instructions: Complete the questions on the sheets provided. Show any workings where necessary.

1. Draw an energy level diagram for each of the following:

- a. Silicon 2pts
- b. Beryllium Ion, Be^{2+} 2pts



c. How many how many electrons are in the valence shell of the Silicon atom? 1pt

4e⁻

2. Determine the names of the following compounds: 3pts

- a. C_6H_{10} Hexacarbon Decahydride
- b. OF_2 Oxygen Difluoride
- c. N_2O_4 Dinitrogen Tetraoxide

3. Write the formulas for the following compounds: 2pts

- a. Phosphorous Monoxide PO
- b. Heptasulfur Nonabromide ~~7~~ S₇Br₉

4. Determine the names of the following compounds: 5 pts

- a. GaO Gallium Oxide
- b. MgI_2 Magnesium Iodide
- c. $Cd(II)Se$ Cadmium (II) Selenide
- d. $SrSO_4$ Strontium Sulfate