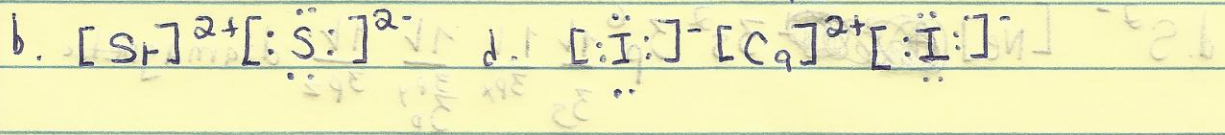
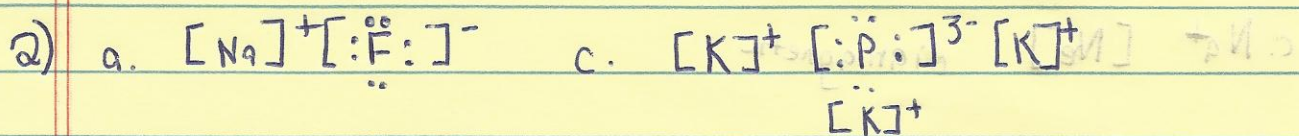
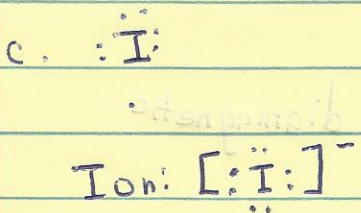
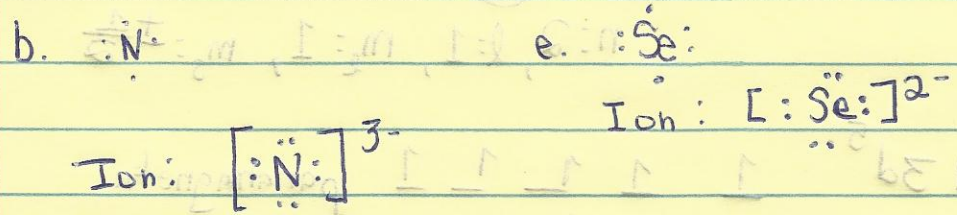
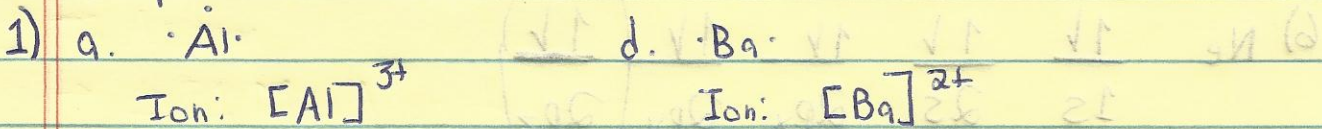
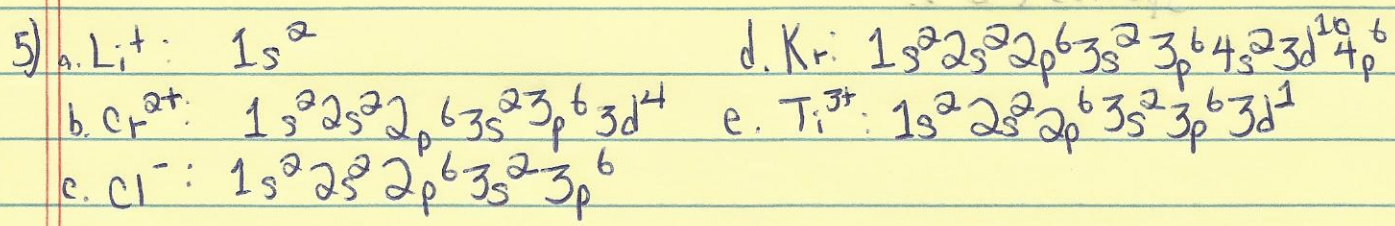


Chapter 10 Problem Set



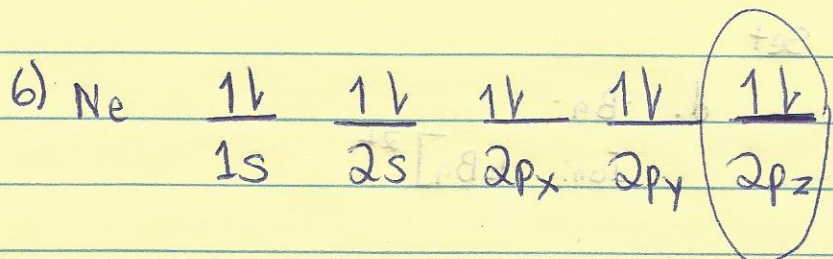
3) a. covalent b. ionic c. ionic d. covalent e. covalent

- 4) a. HBr - hydrobromic acid
 b. BF_3 - boron trifluoride
 c. Ba_3As_2 barium arsenide
 d. Ca_3P_2 calcium phosphide
 e. GaCl_3 gallium chloride

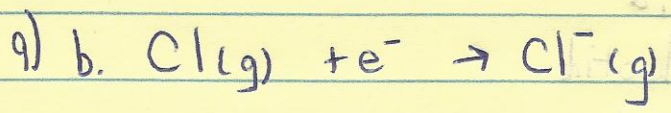
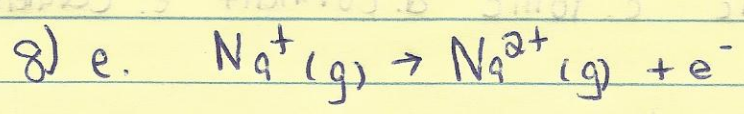
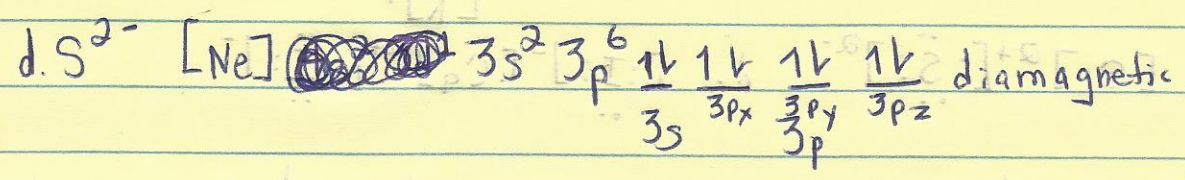
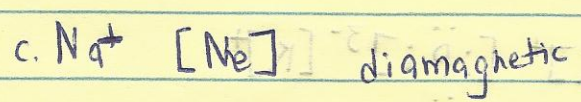
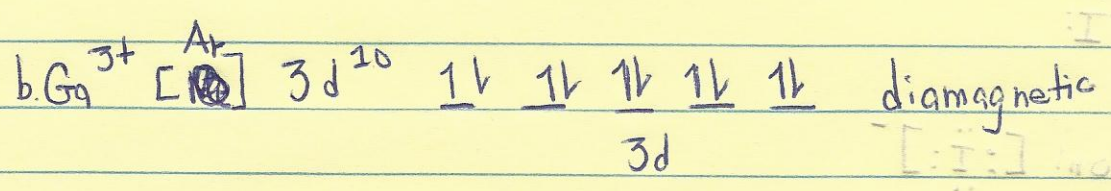
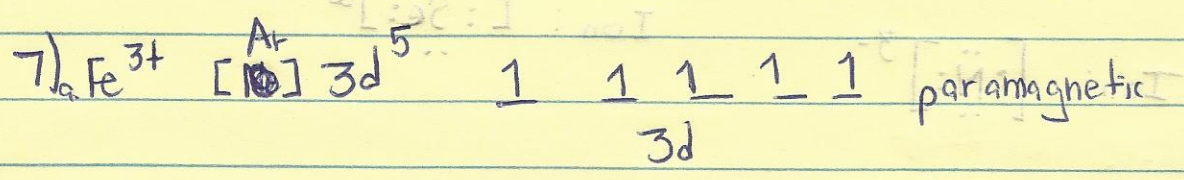


(1)

(2)



$n=2, l=1, m_l=1, m_s=\pm\frac{1}{2}$



c is not exothermic because of the energy absorbed by adding a second e^- to a negatively charged species (O^-).

3

10) a. Na \rightarrow wants to lose an e^- whereas Na^+ already has a noble gas configuration.

b. $Cl_2 \rightarrow$ The individual Cl do not yet have a noble gas configuration whereas Cl^- fully does.

11) a. calcium fluoride d. ammonium chlorate
b. cobalt(II) bromide e. lead(II) sulfide
c. sodium oxalate

12) a. K_3PO_4 b. K_2HPO_4 c. KH_2PO_4 d. H_3PO_4