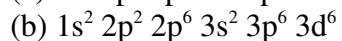
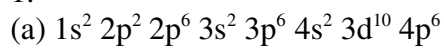


1.



2. Alkaline earth metals

3.

(a) 2+

(b) 2-

4. It has six valence shell electrons. It can share two of its $3p^4$ electrons, all four of the $3p^4$ electrons, or all six of the $3p^2 3p^4$ electrons.

5.

(a) 1,3,5,7

(b) 3,5

6.

(a) Intermediate

Zinc oxide does not react with water.

(b) High

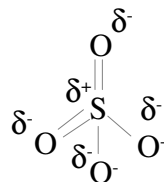
The reaction with water is $P_4O_{10} + 6H_2O \rightarrow 4H_3PO_4$

7.

(a) Si: +4, O: -2

(b) Na: +1, C: +4, O: -2

8.



no molecular polarity
tetrahedral