1) Provide the electron configuration for S

2) Provide the electron configuration for the most common ion of sodium

3) Give the element that has this electron configuration: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^3$

4) Give the +2 ion with this electron configuration: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6$

5) How many valance electrons are in an atom with this electron configuration: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^6$

6) Which element has the largest atomic radius: Ca, Ba, Mg

7) Which element has the largest atomic radius: B, O, N

8) Which element has the least metallic character: P, S, Si

9) Which element has the most metallic character: O, S, Se

10) Which element has the largest radius: C, N, Ne

11) Which element has the smallest atomic radius: Na, K, Cs

12) What is the predicted charged for an ion of Al

13) How many valence electrons is in an atom of Ge

14) Write the electron configuration for the valance electrons of P

15) What is the expected charge of ions from elements in group VIIA

16) Provide the chemical name of VO

17) Write the formula for manganese(IV) oxide

18) Provide the chemical name of CaO

19) Provide the formula for sodium oxide

20) Provide the chemical name of NO

21) Provide the formula for dinitrogen pentaoxide

22) Provide the chemical name for this species $C_2H_3O_2^-$

23) Write the correct compound between aluminum ion and sulfate

24) Write the correct compound between cobalt(VI) and chloride

25) What is the name of this ion: O^{2-}

26) Provide the name of this compound: $Ga_2(SO_4)_3$

27) Provide the name for this aqueous acid: HF(aq)

28) Provide the name for this binary molecular compound: NF_3

29) Balance this reaction: $Fe(s) + O_2(g) \rightarrow Fe_2O_3(s)$

30) Balance this reaction: $KClO_3(s) \rightarrow KCl(s) + O_2(g)$

31) Write and balance the reaction of sulfur with oxygen gas to produce sulfur trioxide.

32) Write and balance the reaction of sodium sulfate reacts with calcium nitrate to give sodium nitrate and a precipitate of calcium sulfate.

33) What type of reaction is this: $NaOH(aq) + HCl(aq) \rightarrow NaCl(aq) + H_2O(l)$

34) Complete and balance this reaction: $Ca(OH)_2 + HNO_3 \rightarrow$

35) Which of these is an acid: H_2O, HCl, NaCl, NaOH

36) Which of these is a base: H_2O, HCl, NaCl, NaOH

37) Which of these is a salt: H_2O, HCl, NaCl, NaOH