

14. Why does the electronegativity increase as you go across the period?

have more valance e-  
electronegativity = want for an e-

15. Why do noble gases have zero electronegativity?

They are full! no need for another e-

16. Why does the shielding effect stay constant when going across the period?

no energy levels are added; staying on same energy level

17. Is there a relationship between the number of valance electrons and electronegativity?

yes! the more valance e-, the more "want" for last e- to have full octet.  
and noble gas have zero b/c full s and p, full octet

18. Why does the third ionization energy increase significantly with the calcium ion?

Calcium has 2 valance e- hence after 2 electrons are taken it becomes like a noble gas - very hard to remove e- from

19. Which orbitals hold the valance electrons? s and p

20. What element has the electron configuration  $1s^2 2s^2 2p^6 3s^2 3p^2$  \_\_\_\_\_?

21. What does the dot diagram look like for an atom with the electron configuration  $1s^2 2s^2 2p^6 3s^2 3p^5$  ?

highest energy level  
s and p = 7



22. What would be the electron configuration for the  $F^{-1}$ , fluoride ion?

23. How many valance electrons do each atom try to obtain? 8

24. What do you notice about the number of valance electrons as you move from left to right across a row or period on the periodic table?

(Na -> Mg -> Al -> Si -> P -> S -> Cl -> Ar ->) increase and it equals the group its in  
1 2 3 4 5 6 7 8

25. What is the electron configuration of potassium?

26. Group A elements are known as representative elements