K	C	A	T
15		31	

/46 = %

Name:_____

ule, Electron Configuration and Periodic Table Quiz

1. For each of the following atoms indicate if the atom would lose, gain or lose/gain to follow the octet rule, how many electrons will be lost or gained and finally what the resulting ion would be. The first one is done as an example.

Atom	Lose/Gain	How Many e^{1-}	Resulting Ion
$_{20}Ca$	lose	2	Ca^{2+}
$_{16}S$			
$_{9}F$			
$_{15}P$			
$_{3}Li$			
$_{56}Ba$			
$_{54}Xe$			
$_{6}C$			
$_{1}H$			
$_{13}Al$			
$_{17}Cl$			
$_{19}K$			
$_{53}I$			
$_{7}N$			
$_{4}Be$			
$_{52}Te$			
$_{50}Sn$			
$_{8}O$			
$_{14}Si$			
$_{88}Ra$			
$_{12}Mg$			

one mark each for ions

/1 /1

/22 A

2. For each of the following, either show the end of the electron configuration or show the element that corresponds to the end of the electron configuration:

Element Symbol	Electron Configuration
$_{15}P$	
	$5p^3$
	$5d^9$
$_{71}Lu$	
$_{102}No$	
	$4f^1$
	$7s^2$
	$5f^6$

/8 A

3. Write the complete electron configuration for Schlenkium, which is element 118 the next noble gas.

/3 A

4. PUT YOUR PERIODIC TABLE AWAY!! On the next page indicate the location of each of the following on the periodic table provided.

a) the name of each family (vertical columns) in the main group of elements (eight in total) /5

b) location of the main group, transition metals and rare earth metals /3

c) diatomic gases, monoatomic gases, liquids, and metals vs non-metals /5

d) label location of the shells /1

e) s,p,d and f block /1

Do not fill in the electron configurations /11A

/5 /3 /5 /1 /1

/15 K

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt									

La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No