Name Kon	Name	1 L
(print name)	(sign name)	- blue
Please show work for full cred	it and to get partial credit. $(P_{total} = P_A + P_B +$	Pc +)
$(\chi = \text{mole fraction} = P_A / P_{\text{total}} =$	= n A/ n total)	
1. If the total pressure insid	de a cylinder is 1.2 atm and the pressure of the	he water varor is 0.5 atm. what is
the pressure of the only	other gas in the cylinder, hydrogen? Show	work. (4 pts)
Ptalal = 1	. 2 atm Piro = 00	Sata (Mangt-L)
1) - ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	120 - 01	math
total = 6	ho + Ph =	( alaebra Z)
1.2 - 0	5 dbm + 8/2	Cooper
(12-0)	wan + other	00-1
2 a If the principal areas	im number (n) is 4, what is the equation of the	0. Jata
momentum quantum nur	un number (ii) is 4, what is the equation of the mber (!) (2 nts)	ne allowed possible angular
	<i>f</i>	(0 to 4 -t')
r= 0, 111 /1 -1	or 0, 11, (4-	1) (4/0 +4 8 = 14)
b. How many orbitals are in th	ne p subshell? (p is the angular momentum qu	Doublem number (- 1)
		wantum number $\ell=1$ ) $SA(d+1)$
[(0) (1)(3)(5) ] (circle one)	$(2 pts) \qquad -1, O, +1$	( 1)(1)(1)
c. How many maximum numb	per of electrons are allowed in the p subshell	, \Juse_1/
(2)(6)(10)(14)] (circle one) (2	pts) 2 per orbita	C x 1260
	•	
3. Give the electron configu	ration for the element Si using the notation	(1s <sup>2</sup> , 2s <sup>2</sup> ,). Show all
•	e lowest energy levels. (10 pts)	14.0
1154, 25, 2,	06, 452 3p2 (ex	tvo ~
12.0	TOPIN	ong 1)
( LPH (2)	pt (2 pt) (2 pt)	
Extra credit: a. What is the valer	nce electron configuration for the above elem	tont I was some of
(2 pts)	2	ent, 7 use same notation as above
3757 7	ROTU	arce 13
	1 a B	
(Ipt )	(M)	/
use the notation	n diagram for the valence electrons for the s	ame element. (2 pts)
1s 2s	<del></del>	
	1 11 -	
C. D. Cilla	A 35 30 TI	
1 (Un) 17th	A CIII	und violation -t)
	In Correct	VER VIVIET J

Quiz V General Chemistry I Lecture Fall 14 Dr. Hahn 20 pts 10/29 W 9:30am form B quiz #
Name Len Name
Name (print name)  Please show work for full credit and to get partial credit. ( $P_{total} = P_A + P_B + P_C +$ )  ( $\chi = \text{mole fraction} = P_A / P_{total} = n_A / n_{total}$ )
1. If the pressure of nitrogen is 760 mm Hg and the pressure of the helium is 20 mm Hg what is the total pressure the gases inside a cylinder containing the two gases? Show work. (4 pts)
(typo) Ptotal = 760 mm/sg + 20 nm/sg = 780 mm/sg Otot)
2. a. If the angular momentum quantum number (1) is 2, what is the equation of the allowed possible magnetic quantum number (m <sub>1</sub> ) (2 pts)
(-2 0, +1) or -1, -1, 0, +1, +2) (-12)
How many orbitals are in the d subshell? (d is the angular momentum quantum number of $\ell = 2$ )  [(0) (1) (3)(5))(circle one) (2 pts)  -2, -1, 0, +1, +2
c. How many maximum number of electrons are allowed in the d subshell?
[(2)(6)(10)(14)] (circle one) (2 pts) $5 + 2 = 10e$
3. Give the electron configuration for the element Br using the notation (1s <sup>2</sup> , 2s <sup>2</sup> ,). Show all electrons starting from the lowest energy levels. (10 pts)
15 <sup>2</sup> , 25 <sup>2</sup> , 2p <sup>6</sup> , 45 <sup>2</sup> , 3d <sup>6</sup> , 45 <sup>2</sup> , 3d <sup>6</sup> , 45
20 200 (pt) (pt) (pt) (pt)
Extra credit: a. What is the valence electron configuration for the above element? use same notation as above (2 pts)
452, 4p5 (extro wrong -t)
(pt) (pt) Ent valence )
b. Give the electron configuration diagram for the valence electrons for the same element (2 pts)
$\frac{1}{1s} \frac{1}{2s} \frac{1}{1} $
Violate 45
(Jund 2) ( msister OK)
incorrect In with above
25

Quiz V General Chemistry I Lecture Fall 14 D	or. Hahn 20 pts 10/29 W 10:30am	form A quiz#
Name Kery	Name(sign name)	- Pink
(print name)		
Please show work for full credit and to get partia $(\chi = mole fraction = P_A/P_{total} = n_A/n_{total})$	1 credit. $(P_{total} = P_A + P_B + P_C +)$	
<ol> <li>If a mixture of gases has a total pressure of 0.150 atm, what is the mole fraction of the</li> </ol>	a avugan in the mivture of gases ? S	how work (4 nte)
PEatal = 0, 955 at	~ Pa=0.150a	In attempt 2
$P_{\text{tatal}} = 0.955at$ $\chi_{0z} = \frac{0.150at}{0.955a}$	m = 0.157	algebra - E
2. a. ii the principal quantota humbor (ii )	is 3, what are the possible variety of the	ne angular momentum
quantum number $\ell$ (2 pts) $Q$ , $Q$ , $Q$	(n + = 3 +	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
b. How many orbitals are in the f subshell? (f is	the angular momentum quantum nur	mber of $t=3$ ) $-3$ , $-3$
[(0) (1) (3) (5) (7) circle one) (2 pts)	-3, -2, -1,0, +1, +	2, 11 Sint
c. How many maximum number of electrons are	e allowed in the f subshell?	( C) to 4-1
[(2)(6)(10)(14)] circle one)(2 pts)	x7=16	New York
3. Give the electron configuration for the electrons starting from the lowest energy levels.	(10 pts)	(2-1)
152, 252, 2p6,352,	3, ph, 452, 30	10 406
(5 st Tot rest		
2pt)		•
Extra credit: a. What is the valence electron conf (2 pts)	figuration for the above element? u	se same notation as above
55t hot	valence -D	
Sam	( 4p6 -1)	
b. Give the electron configuration diagram for the (use the notation	e valence electrons for the same eler	ment. (2 pts)
	14 CIM	notest
(incorrect)	55 (6)	Neone Oke)
orbitals (Vi	olates Hund	( <del>1</del> ))
OV PI CWI	10000	(2)
300000		
25		

Name	Key Name
(print name)	(sign name)
Please show $(\gamma = mole fr$	work for full credit and to get partial credit. $(P_{total} = P_A + P_B + P_C +)$ action = $P_A / P_{total} = n_A / n_{total})$
1. If wat	er vapor is 0.12 atm and the total pressure of the gases collected over water is 1.23 atm, what is ole fraction of the water vapor? Show work. (4 pts)
	Party Dettern
	840 = 0.12 alm PEotal = 1,23 alm attemp X 420 = 0.12 alm = 0,0976 algebra + 1,23 alm = 0,0976 algebra +
	X 40 = 0.12 atm - 00001 (000000)
	1.23 apr - 0,07/6
2. a I	
	f the angular momentum quantum number (t) is 2, what are the possible values of the magnetic
quantum nu	mber $m_{i} = -2$ , $-1$ , $0$ , $+1$ , $+2$ (2 ptg) $0$
b. How ma	any orbitals are in the s subshell? (s is the angular momentum quantum number of $\ell=0$ )
<u> </u>	$\rho \circ \rho$
•	$/$ $ml=0$ $/ O_{i}$
c. How ma	ny maximum number of electrons are allowed in the s subshell?
((2))(6) (10) (	14)] (circle one) (2 pts) $2 \in per Ovbital = 20 0057$
3. Give the electrons start	the electron configuration for the element N using the notation (1s <sup>2</sup> , 2s <sup>2</sup> ,). Show all
	ing from the lowest energy levels. (10 pts)
15	5 475 4p
1	
(4 nt	7 (2 at) (2 at)
TIM	1 (16)
Extra credit:	a. What is the valence electron configuration for the above element? use same notation as above
(2 pts)	
	252, 28° (Not vallace -
h Gwathaal	Calif
use the notation	ectron configuration diagram for the valence electrons for the same element. (2 pts)
	18 28 AV 1 1 1 (Unsustant
	20 20 00
	(1) OLAAD HILL A
	Viole hund - Z
	(-1) (in correct ac

Quiz V General Chemistry I Lectur	re Fall 14 Dr. Hahn 20 pts 10/29 W 9:30am	form A quiz#
	Name (sign_name) d to get partial credit. $(P_{total} = P_A + P_B + P_C +)$ / $n_{total}$ )	blue
	cylinder is 1.2 atm and the pressure of the water very gas in the cylinder, hydrogen? Show work. (4)	
momentum quantum number	umber (n) is 4, what is the equation of the allowed $r(\ell)$ (2 pts)	d possible angular
b. How many orbitals are in the p s	subshell? (p is the angular momentum quantum n	umber $l=1$ )
[(0)(1)(3)(5)] (circle one) (2 p	ots)	
c. How many maximum number of	of electrons are allowed in the p subshell?	
[(2) (6) (10) (14)] (circle one) (2 pts)	)	
3. Give the electron configuration electrons starting from the low	ion for the element Si using the notation (1s <sup>2</sup> , 2s <sup>2</sup> ) west energy levels. (10 pts)	<sup>2</sup> ,). Show all
Extra credit: a. What is the valence (2 pts)	electron configuration for the above element? u	se same notation as above
b. Give the electron configuration di (use the notation 1) 1 2s	iagram for <u>the valence electrons</u> for the same electrons)	ment. (2 pts)

Quiz V General Chemistry I Lecture Fall 14 Dr. Hahn 20 pts 10/29 W 9:30am form B quiz #
Name Name
Name Name (print name) (sign name)
Please show work for full credit and to get partial credit. ( $P_{total} = P_A + P_B + P_C +$ ) ( $\chi = \text{mole fraction} = P_A / P_{total} = n_A / n_{total}$ )
1. If the pressure of nitrogen is 760 mm Hg and the pressure of the helium is 20 mm Hg, what is the total pressure the gases inside a cylinder containing the two gases? Show work. (4 pts)
<ul> <li>2. a. If the angular momentum quantum number (/) is 2, what is the equation of the allowed possible magnetic quantum number (m<sub>t</sub>) (2 pts)</li> </ul>
b. How many orbitals are in the <b>d</b> subshell? (d is the angular momentum quantum number of $\ell = 2$ )
[(0) (1) (3) (5)] (circle one) (2 pts)
c. How many maximum number of electrons are allowed in the <b>d</b> subshell?
[(2) (6) (10) (14)] (circle one) (2 pts)
3. Give the electron configuration for the element <b>Br</b> using the notation (1s², 2s²,). Show all electrons starting from the lowest energy levels. (10 pts)
Extra credit: a. What is the valence electron configuration for the above element? use same notation as above (2 pts)
b. Give the electron configuration diagram for the valence electrons for the same element. (2 pts) (use the notation 1/2 2s

Name	Name (sign_name)	- Pink
(print name)	(sign name)	
Please show work for full credit ( $\chi$ = mole fraction = $P_A/P_{total}$ = 1	and to get partial credit. ( $P_{total} = P_A + P_B + P_C + n_A/n_{total}$ )	۲)
	a total pressure of 0.955 atm and the oxygen par le fraction of the oxygen in the mixture of gase	
	am number (n) is 3, what are the possible value	_
b. How many orbitals are in the	f subshell? (f is the angular momentum quantu	m number of $\ell = 3$ )
[(0) (1) (3) (5) (7) ] (circle one)	(2 pts)	
c. How many maximum numbe	or of electrons are allowed in the f subshell?	
[(2) (6) (10) (14)] (circle one) (2	pts)	
Give the electron configur electrons starting from the lowest	ration for the element <b>Sr</b> using the notation (energy levels. (10 pts)	$1s^2, 2s^2, \dots$ ). Show all
Extra credit: a. What is the valer (2 pts)	nce electron configuration for the above elemen	t? use same notation as abo
b. Give the electron configuration (use the notation 1s 2	n diagram for the valence electrons for the same valence electrons elect	ne element. (2 pts)

Quiz V	General Chemistry I Lecture Fall 14 Dr. Hahn 20 pts 10/29 W 10:30am form B quiz #
Name _	Name
	(sign name) (sign name) show work for full credit and to get partial credit. $(P_{total} = P_A + P_B + P_C +)$ to the fraction $= P_A / P_{total} = n_A / n_{total}$
	If water vapor is 0.12 atm and the total pressure of the gases collected over water is 1.23 atm, what is the mole fraction of the water vapor? Show work. (4 pts)
2. ε	If the angular momentum quantum number (!) is 2, what are the possible values of the magnetic
quantum	n number m <sub>t</sub> (2 pts)
b. Ho	ow many orbitals are in the s subshell ? (s is the angular momentum quantum number of $\ell=0$ )
[(0)(1)	(3) (5) ] (circle one) (2 pts)
c. Ho	ow many maximum number of electrons are allowed in the s subshell?
[(2)(6)	(10) (14)] (circle one) (2 pts)
	Give the electron configuration for the element $N$ using the notation $(1s^2, 2s^2,)$ . Show all s starting from the lowest energy levels. (10 pts)
Extra cre (2 pts)	edit: a. What is the valence electron configuration for the above element? use same notation as above
b. Give (use the	the electron configuration diagram for the valence electrons for the same element. (2 pts) notation $\frac{1}{1s}$ $\frac{1}{2s}$