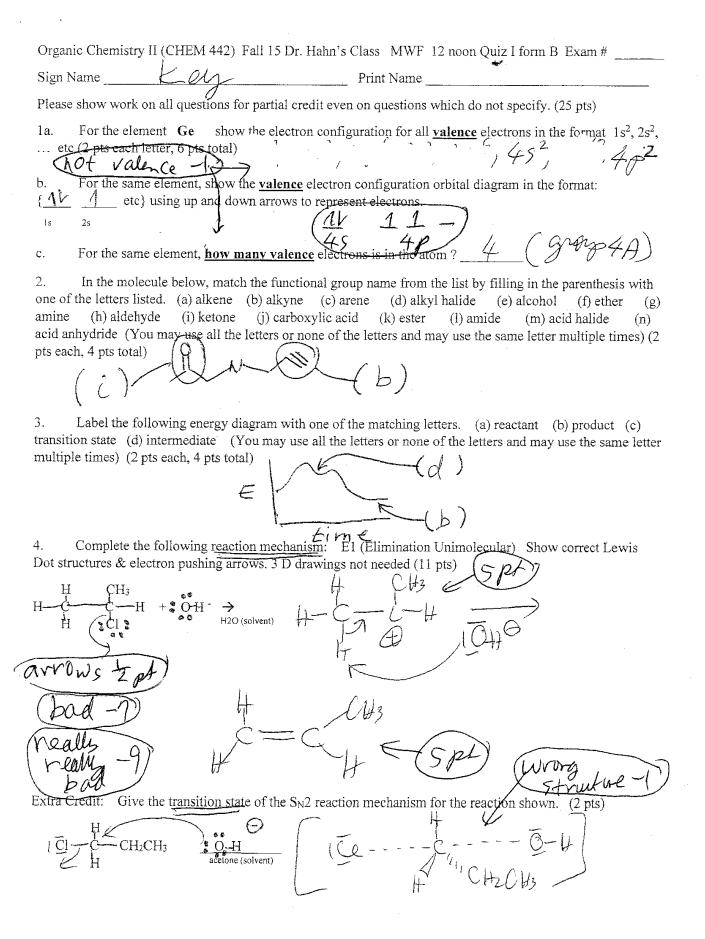
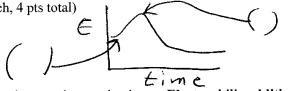
Organic Chemistry II (CHEM 442) Fall 15	5 Dr. Hahn's Class MWF 12 noon Quiz I form A Exam #
Sign Name Klly	Print Name 5/40
Please show work on all questions for parti	ial credit even on questions which do not specify. (25 pts)
etc (2 pts each letter, 6 pts total) (Net Valon (2 -1)	etron configuration for all valence electrons in the format 1s ² , 2s ² , 155 ² , 56 ¹ ence electron configuration orbital diagram in the format ows to represent electrons
c. For the same element, how many v	alence electrons is in the atom? 3
2. In the molecule below, match the fi one of the letters listed. (a) alkene (b) al amine (h) aldehyde (i) ketone (j) of	kyne (c) arene (d) alkyl halide (e) alcohol (f) ether (g) carboxylic acid (k) ester (l) amide (m) acid halide (n) s or none of the letters and may use the same letter multiple times) (2
	a with one of the matching letters. (a) reactant (b) product (c) ay use all the letters or none of the letters and may use the same letter
	echanism: Electrophilic addition of H Cl to alkene. Show shing arrows. 3 D drawings not needed (11 pts)
$\begin{array}{c} H \\ C = C \\ H \end{array} \qquad \begin{array}{c} CH_2CH_3 \\ + \end{array}$	H-C-H2CH3 ICU
(bad -1)	H-C-C-CHOW
really bad -9	H (504)
Extra Credit: Give the transition state of	f the S _N 2 reaction mechanism for the reaction shown. (2 pts)
H C Br O CH ₃ acetone (solvent)	1 HS 0 B-



Organ	ic Chemistry II (CHEM	442) Fall 15 Dr. Hahn's	Class MWF 12	2 noon Quiz I form A Ex	xam #
Sign N	Name		Print Name		blue
		ons for partial credit ever			
1a. etc	For the element In a c (2 pts each letter, 6 pts	show the electron configuent total)	ıration for all <u>va</u> l	lence electrons in the for	rmat $1s^2, 2s^2,$
b. { <u></u>	For the same element, s etc} using up a	show the <u>valence</u> electron and down arrows to repres	n configuration o sent electrons.	rbital diagram in the for	mat:
c.	For the same element, J	how many valence electr	rons is in the ator	m?	
amine acid a	f the letters listed. (a) ale (h) aldehyde (i) k	match the functional grokene (b) alkyne (c) a etone (j) carboxylic ad all the letters or none of	rene (d) alkyl cid (k) ester	halide (e) alcohol (l) amide (m) acid	(f) ether (g) halide (n)

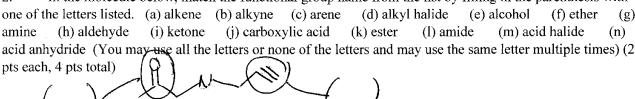
3. Label the following energy diagram with one of the matching letters. (a) reactant (b) product (c) transition state (d) intermediate (You may use all the letters or none of the letters and may use the same letter multiple times) (2 pts each, 4 pts total)



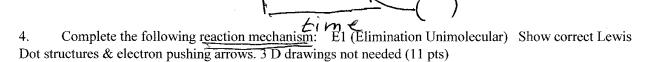
4. Complete the following reaction mechanism: Electrophilic addition of H Cl to alkene. Show correct Lewis Dot structures & electron pushing arrows. 3 D drawings not needed (11 pts)

Extra Credit: Give the transition state of the Sn2 reaction mechanism for the reaction shown. (2 pts)

Organ	c Chemistry II (CHEM 442) Fall 15 Dr. Hahn's Class MWF 12 noon Quiz I form B Exam#					
Sign N	ame Print Name					
Please	show work on all questions for partial credit even on questions which do not specify. (25 pts)					
	For the element Ge show the electron configuration for all <u>valence</u> electrons in the format $1s^2$, $2s^2$, etc (2 pts each letter, 6 pts total)					
For the same element, show the <u>valence</u> electron configuration orbital diagram in the format: { 1						
c.	For the same element, how many valence electrons is in the atom?					
2. one of	In the molecule below, match the functional group name from the list by filling in the parenthesis with he letters listed. (a) alkene (b) alkyne (c) arene (d) alkyl halide (e) alcohol (f) ether (g)					



3. Label the following energy diagram with one of the matching letters. (a) reactant (b) product (c) transition state (d) intermediate (You may use all the letters or none of the letters and may use the same letter multiple times) (2 pts each, 4 pts total)



Extra Credit: Give the $\underline{\text{transition state}}$ of the S_N2 reaction mechanism for the reaction shown. (2 pts)