Participation Assignment
CHEM 1090-General Chemistry I

Name: **#14**

Section: 33, TR **Due Date: Tuesday 2/21/2019**

1. Calculate the enthalpy of reaction for the decomposition of 500.0 g of nitroglycerin, $C_3H_5N_3O_9(l)$:

$$4\ C_3H_5N_3O_9(l) \rightarrow\ 6\ N_2(g) + 12\ CO_2(g)\ +\ 10\ H_2O(g)\ +\ O_2(g) \qquad \Delta H^o = -5660.0\ kJ$$

2. Write the ground-state electron configuration for each of the following atoms using the complete subshell notation (ie do not use a noble gas core):

a. H

b. He

c. Li

d. Be

e. B

f. C

g. N

h. O

i. F

j. Ne

k. Na

l. Mg

m. Al

n. Si

o. P

p. S

q. Cl

r. Ar

3. When $n = 8$, write the possible values of l.

4. When $l = 5$, write the possible values of m_l