Physical Science (PSC 102) Fall 18 Dr. Hahn MWF 9 am Quiz III form A 9/28 F Exam # _____

Name Key Name _____
Sign Print (bc I can't read your signatures) pink

Please show work for full credit and partial credit on all questions (even those which do not specify show work).

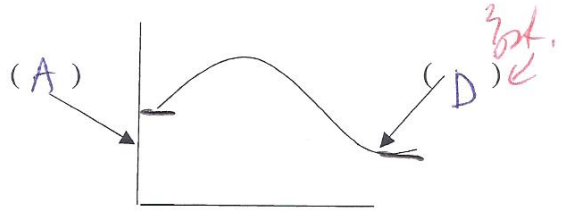
1. a. Balance the following reaction by filling in the blank with the appropriate number. (6 pts)

-3pt

4 K + 1 O_2 → 2 K_2O

4 K, 2 O | 4 K, 2 O

2. For the following energy diagram, label by matching the letter to the provided parenthesis.
(A) Energy (B) time or progress of reaction (C) reactant (D) product (6 pts)



3pt.

downhill - exothermic

3. Given the following reactant, write down the expected reaction product. **Reaction does not need to be balanced.** (6 pts, 3 pts each blank)

no pts off if wrong blank

C_2H_6 + O_2 → CO_2 (g) + H_2O (l)

↑ hydrocarbon (C + H only in molecule)

The reaction that you show is a (2 pts)

[(acid base reaction) or (combustion reaction) or (dissociation of acid in water reaction)] (circle one)

Extra Credit Question Is the following (A) combination (B) decomposition reaction (4 pts)

H_2CO_3 → H_2O + CO_2 [(A) or (B)](circle one)

AB → A + B

Physical Science (PSC 102) Fall 18 Dr. Hahn MWF 9 am Quiz III form B 9/28 F Exam # _____

Name Key
Sign

Name _____
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Please show work for full credit and partial credit on all questions (even those which do not specify show work).

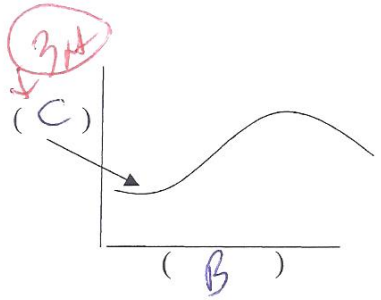
1. a. Balance the following reaction by filling in the blank with the appropriate number. (6 pts)

3pt

Ti + 2 Cl_2 → 1 $TiCl_4$

1 Ti, 4 Cl | 1 Ti, 4 Cl

2. For the following energy diagram, label by matching the letter to the provided parenthesis.
(A) Energy (B) time or progress of reaction (C) reactant (D) product (6 pts)



3. Given the following reactant, write down the expected reaction product. **Reaction does not need to be balanced.** (6 pts, 3 pts each blank)

(HX)

3pt

no pts off wrong blank

HI + KOH → KI (aq) + H–OH (l)

acid base(has OH) salt water

The reaction that you show is a (2 pts)

[(acid base reaction) or (combustion reaction) or (dissociation of acid in water reaction)] (circle one)

Extra Credit Question Is the following (A) combination (B) decomposition reaction (4 pts)

H_2 + O_2 → H_2O [(A) or (B)] (circle one)

A + B → AB

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Name Key _____ Name _____
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Please show work for full credit and partial credit on all questions (even those which do not specify show work).

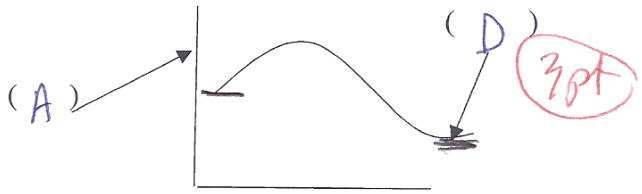
1. a. Balance the following reaction by filling in the blank with the appropriate number. (6 pts)

4pt

2 Na + 1 Br_2 → 2 Na Br

2 Na, 2 Br | 2 Na, 2 Br

2. For the following energy diagram, label by matching the letter to the provided parenthesis.
(A) Energy (B) time or progress of reaction (C) reactant (D) product (6 pts)



3pt

downhill - exothermic

3. Given the following reactant, write down the expected reaction product. **Reaction does not need to be balanced.** (6 pts, 3 pts each blank)

hydrocarbon (only C + H)

C_7H_{16} + O_2 → CO_2 (g) + H_2O (l)

no pts off wrong blank

The reaction that you show is a (2 pts)

[(acid base reaction) or (combustion reaction) or (dissociation of acid in water reaction)] (circle one)

Extra Credit Question Is the following (A) combination (B) decomposition reaction (4 pts)

H_2 + O_2 → H_2O [(A) or (B)] (circle one)

A + B → AB

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Name key Name _____
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Please show work for full credit and partial credit on all questions (even those which do not specify show work).

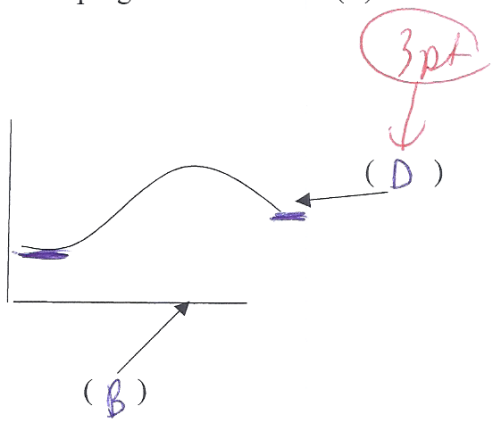
1. a. Balance the following reaction by filling in the blank with the appropriate number. (6 pts)

3pt

__2__ Al + __3__ Cl_2 → 2 Al Cl_3

2 Al, 6 Cl | 2 Al, 6 Cl

2. For the following energy diagram, label by matching the letter to the provided parenthesis.
(A) Energy (B) time or progress of reaction (C) reactant (D) product (6 pts)



uphill
endothermic

3. Given the following reactant, write down the expected reaction product. **Reaction does not need to be balanced.** (6 pts, 3 pts each blank)

#X

H F + Li OH → Li F (aq) + H_2O (l)

salt Water

acid base (has OH)

The reaction that you show is a (2 pts)

[(acid base reaction) or (combustion reaction) or (dissociation of acid in water reaction)] (circle one)

Extra Credit Question Is the following (A) combination (B) decomposition reaction (4 pts)

H_2CO_3 → H_2O + CO_2 [(A) or (B)](circle one)

AB → A + B