

CHEMISTRY QUIZ – CHEMICAL REACTIONS

NAME _____

DATE _____

SCORE _____

PERIOD _____

You have to decide which one of the suggested answers is correct. Indicate your choice on the answer sheet. Please do not make any marks on this paper.

1- In which type of chemical reaction do two or more reactants combine to form one product, only?

- (1) synthesis
- (2) decomposition
- (3) single replacement
- (4) double replacement

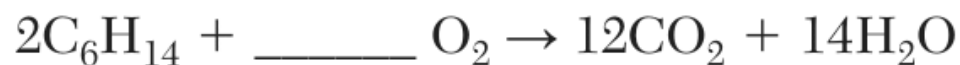
2- What is required for a chemical reaction to occur?

- (1) standard temperature and pressure
- (2) a catalyst added to the reaction system
- (3) effective collisions between reactant particles
- (4) an equal number of moles of reactants and products

3- Which statement describes a chemical reaction at equilibrium?

- (1) The products are completely consumed in the reaction.
- (2) The reactants are completely consumed in the reaction.
- (3) The concentrations of the products and reactants are equal.
- (4) The concentrations of the products and reactants are constant.

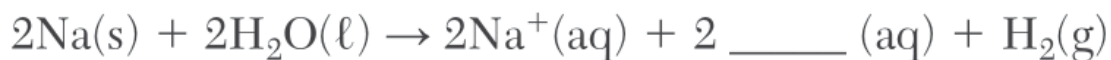
4- Given the incomplete equation representing a reaction:



What is the coefficient of O_2 when the equation is completely balanced using the smallest whole-number coefficients?

- (1) 13
- (2) 14
- (3) 19
- (4) 26

5- Given the incomplete equation representing a reaction:



What is the formula of the missing product?

- (1) O^{2-}
- (2) O_2
- (3) OH^-
- (4) OH

6- Which substance can *not* be broken down by a chemical change?

(1) ammonia

(3) ethane

(2) arsenic

(4) propanal

7- The coefficients in a balanced chemical equation represent

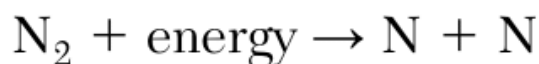
(1) the mass ratios of the substances in the reaction

(2) the mole ratios of the substances in the reaction

(3) the total number of electrons in the reaction

(4) the total number of elements in the reaction

8- Given the balanced equation representing a reaction:



Which statement describes this reaction?

(1) Bonds are broken, and the reaction is endothermic.

(2) Bonds are broken, and the reaction is exothermic.

(3) Bonds are formed, and the reaction is endothermic.

(4) Bonds are formed, and the reaction is exothermic.

This exam was created with information from the New York State Department of Education, and the NY Regents Chemistry Exams. It includes selected questions from many exams that were given before the year 2020. The website link is: <https://www.nysedregents.org/chemistry/>

The exam was put together by Ceres-Science, to help physics students become better problem solvers.
www.ceressoft.net