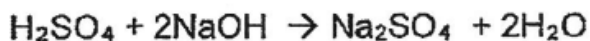


O Level Combined Chemistry MCQs

The Mole Concept and Stoichiometry Test 2.0

Q1

Dilute sulfuric acid reacts with aqueous sodium hydroxide as follows.



A 20.0 cm³ of dilute sulfuric acid required 25.0 cm³ of 0.250 mol/dm³ aqueous sodium hydroxide for complete neutralisation.

What is the concentration of the acid?

- A 0.100 mol/dm³
- B 0.125 mol/dm³
- C 0.156 mol/dm³
- D 0.312 mol/dm³

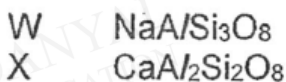
Q2

Which one of the following has the same number of particles as one mole of magnesium atoms?

- A the number of atoms in 71 g of chlorine gas
- B the number of atoms in 64 g of copper metal
- C the number of ions in 1 dm³ of 0.25 mol/dm³ of dilute hydrochloric acid
- D the number of ions in 81 g of zinc oxide

Q3

The chemical formula of two substances, W and X, are given.



Which statements are correct?

- 1 W and X contain the same amount of oxygen.
- 2 W contains three times as much silicon as X.
- 3 X contains twice as much aluminium as W.

- A 1 and 2
- B 1 and 3
- C 2 and 3
- D 1, 2 and 3

Q4

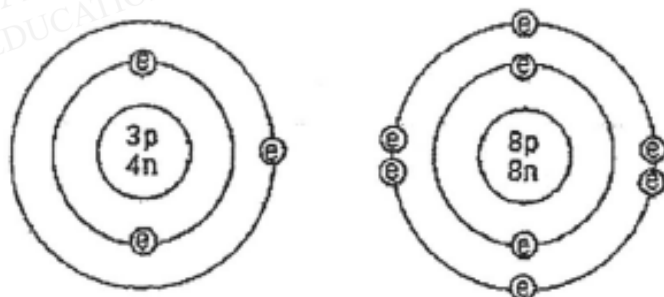
For the reaction shown, which volume of 1.0 mol/dm^3 hydrochloric acid is required to react completely with 5 g of calcium?



- A 5 cm^3 B 10 cm^3 C 125 cm^3 D 250 cm^3

Q5

The diagrams below show the structures of the atoms of two elements.

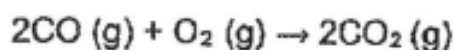


What is the relative molecular mass of the compound formed by these two elements?

- A 11 B 14 C 23 D 30

Q6

40 cm^3 of carbon monoxide reacts with 20 cm^3 of oxygen. The equation for the reaction is shown below.



What volume of carbon dioxide will be produced?
(all volumes are measured at r.t.p.)

- A 20 cm^3 B 40 cm^3 C 60 cm^3 D 80 cm^3

Q7

The formula of an oxide of an unknown metal, U is UO_2 ?
What is the formula of the corresponding fluoride?

- A UF_2 C UF_4
B U_2F D U_4F

Answers

The Mole Concept and Stoichiometry Test 2.0

Q1 C

Q2 A

Q3 B

Q4 D

Q5 D

Q6 B

Q7 C

Q8 B

Q9 C

Q10 B

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION