

O Level Combined Chemistry MCQs

Salts Test 1.0

Q1

Which reactants could be used safely to prepare potassium chloride?

- A aqueous potassium hydroxide and dilute hydrochloric acid
- B aqueous potassium sulfate and aqueous sodium chloride
- C potassium and aqueous sodium chloride
- D potassium and dilute hydrochloric acid

Q2

Which pair of salts are prepared by the same method?

- A sodium chloride and zinc nitrate
- B ammonium sulfate and lead(II) chloride
- C zinc nitrate and iron(II) sulfate
- D barium chloride and lead(II) sulfate

Q3

A bottle of zinc carbonate has been contaminated by some solid potassium sulfate.

How can the potassium sulfate be removed from the zinc carbonate?

- A add dilute acid to the mixture and filter
- B add water to the mixture and filter
- C add water to the mixture and place it in a separating funnel
- D heat the mixture and allow it to cool

Q4

Which reaction requires the use of a burette in the experimental set-up?

- A $\text{BaCl}_2(\text{aq}) + \text{H}_2\text{SO}_4(\text{aq}) \rightarrow \text{BaSO}_4(\text{s}) + 2\text{HCl}(\text{aq})$
- B $\text{CuO}(\text{s}) + 2\text{HCl}(\text{aq}) \rightarrow \text{CuCl}_2(\text{aq}) + \text{H}_2\text{O}(\text{l})$
- C $\text{KOH}(\text{aq}) + \text{HCl}(\text{aq}) \rightarrow \text{KCl}(\text{aq}) + \text{H}_2\text{O}(\text{l})$
- D $\text{MgCO}_3(\text{s}) + \text{H}_2\text{SO}_4(\text{aq}) \rightarrow \text{MgSO}_4(\text{aq}) + \text{H}_2\text{O}(\text{l}) + \text{CO}_2(\text{g})$

Q5

Which reaction is the correct way to prepare insoluble calcium sulfate?

- A $\text{Ca}(\text{NO}_3)_2(\text{aq}) + \text{FeSO}_4(\text{aq}) \rightarrow \text{CaSO}_4(\text{s}) + \text{Fe}(\text{NO}_3)_2(\text{aq})$
- B $\text{CaCO}_3(\text{s}) + \text{H}_2\text{SO}_4(\text{aq}) \rightarrow \text{CaSO}_4(\text{s}) + \text{CO}_2(\text{g}) + \text{H}_2\text{O}(\text{l})$
- C $\text{CaO}(\text{s}) + \text{H}_2\text{SO}_4(\text{aq}) \rightarrow \text{CaSO}_4(\text{s}) + \text{H}_2\text{O}(\text{l})$
- D $\text{CaCl}_2(\text{aq}) + \text{PbSO}_4(\text{s}) \rightarrow \text{CaSO}_4(\text{s}) + \text{PbCl}_2(\text{s})$

Q6

The table below shows the solubility in water of some copper compounds.

compound	solubility
copper(II) oxide	X
copper(II) hydroxide	X
copper(II) chloride	√
copper(II) carbonate	X

Which method is used to prepare copper(II) chloride?

- A warming copper(II) oxide with dilute hydrochloric acid
- B titrating copper(II) hydroxide with dilute hydrochloric acid
- C adding copper to dilute hydrochloric acid at room temperature
- D precipitating the salt by adding copper(II) sulfate solution to dilute hydrochloric acid

Q7

Which of the following is best prepared by titration method?

- A copper (II) sulfate
- B potassium nitrate
- C magnesium sulfate
- D zinc nitrate

Q8

When hydrochloric acid is added to substance X, effervescence is observed but the reaction stops suddenly after only a small volume of gas has been given off. What is substance X?

- A barium carbonate
- B calcium carbonate
- C copper (II) carbonate
- D lead (II) carbonate

Q9

Which substance is added to dilute sulfuric acid to prepare the insoluble lead(II) sulfate?

- A aqueous lead(II) nitrate
- B lead metal
- C powdered lead(II) carbonate
- D powdered lead(II) oxide

Q10

Which of the following combinations of reactants is most suitable for the preparation of the given salt?

	reactants	salt to be prepared
A	calcium carbonate and sulfuric acid	calcium sulfate
B	copper(II) oxide and hydrochloric acid	copper(II) chloride
C	magnesium nitrate and sulfuric acid	magnesium sulfate
D	sodium and nitric acid	sodium nitrate

Answers

Salts Test 1.0

Q1 A

Q2 C

Q3 B

Q4 C

Q5 A

Q6 A

Q7 B

Q8 D

Q9 A

Q10 B

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION