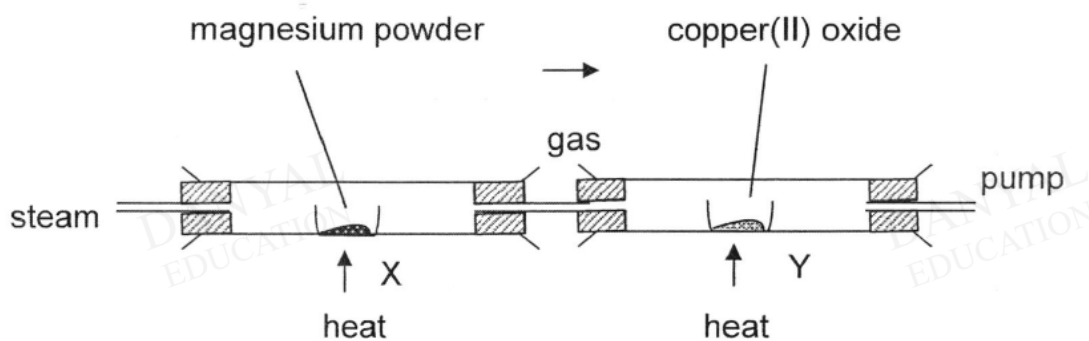


O Level Pure Chemistry MCQs

Metals Test 3.0

Q1

In the experiment shown below, steam is passed into the combustion tube for some time.



What are the products at X and Y respectively?

- A magnesium hydroxide, copper
- B magnesium hydroxide, copper(II) hydroxide
- C magnesium oxide, copper
- D magnesium oxide, copper(II) hydroxide

Q2

Which method will not slow down the rusting process of an iron nail?

- A electroplate the iron nail with silver metal
- B submerge the iron nail in a container completely filled with boiled water
- C submerge the iron nail in oil
- D weld a piece of copper metal to the iron nail

Q3

Study the following statements about P, Q, R and S.

- Carbonate of S decomposes to form a compound and a gas only.
- Only oxides of P and R can be reduced by heating with carbon.
- P and Q react with dilute hydrochloric acid but not with cold water.
- R does not react with dilute hydrochloric acid nor water.

The order of increasing reactivity of the four metals is most likely to be:

- A** $R < P < Q < S$
- B** $R < S < P < Q$
- C** $S < Q < P < R$
- D** $S < R < P < Q$

Q4

Different forms of steel contain differing amounts of carbon.

Steel I contains a high proportion of carbon.

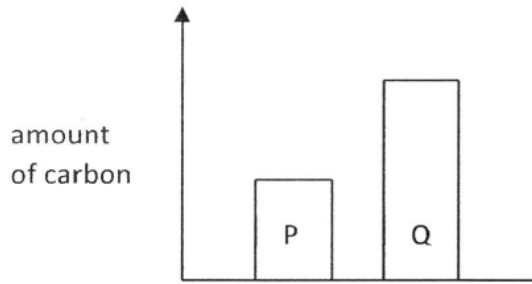
Steel II contains a low proportion of carbon.

Which statement is correct?

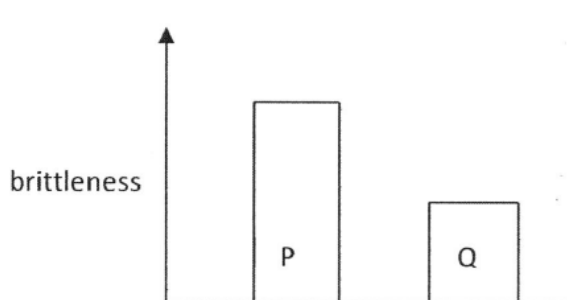
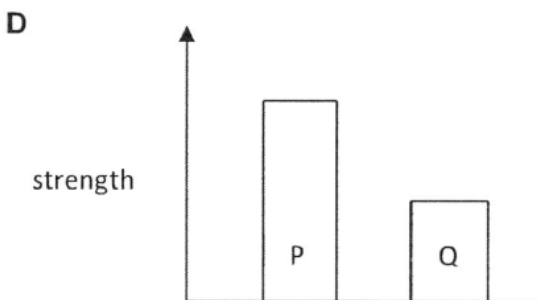
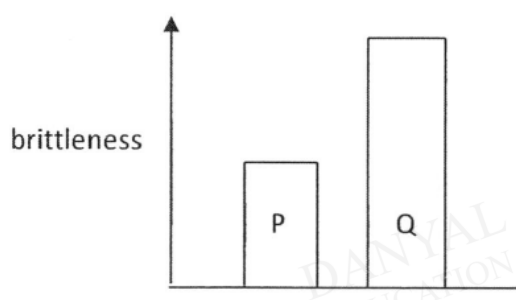
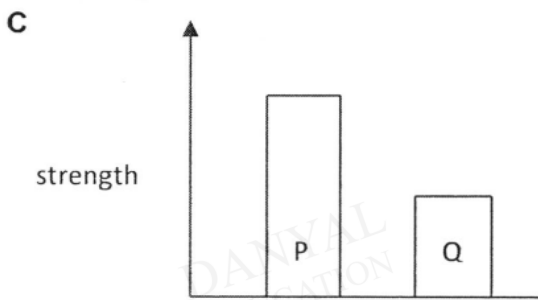
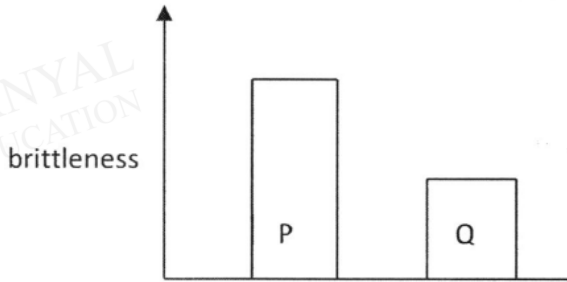
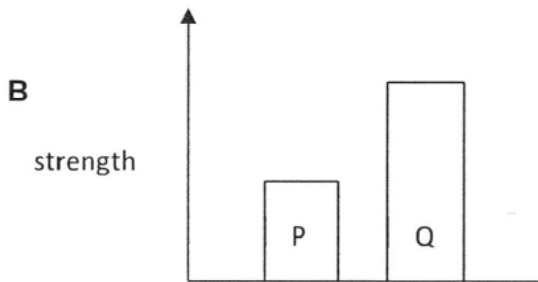
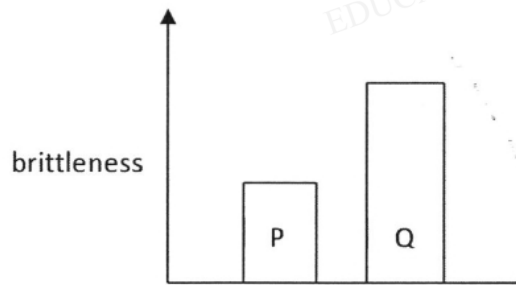
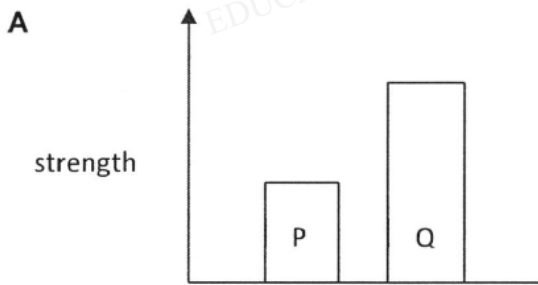
- A** I is less strong but less brittle than II.
- B** I is less strong but more brittle than II.
- C** I is stronger but less brittle than II.
- D** I is stronger but more brittle than II.

Q5

The diagram compares the amount of carbon in two steels, P and Q.



Which two diagrams correctly compare the strength and brittleness of P and Q?



Q6

Some metals can be obtained by the reduction of their oxides with hydrogen.

Which line of the table is correct?

	aluminium	silver	copper	sodium	
A	√	√	X	X	√ can be obtained by reduction of oxide with hydrogen
B	X	√	√	X	
C	X	X	√	√	X cannot be obtained by reduction of oxide with hydrogen
D	√	X	√	X	

Q7

In the extraction of iron, the role of carbon monoxide is

- A a catalyst.
- B a reducing agent.
- C an oxidising agent.
- D to remove impurities.

Q8

Alloys are usually harder than the metals from which they are made.
Which difference between the metals explains the greater hardness of alloys?

- A densities
- B atomic radii
- C electrical conductivities
- D relative atomic masses

Q9

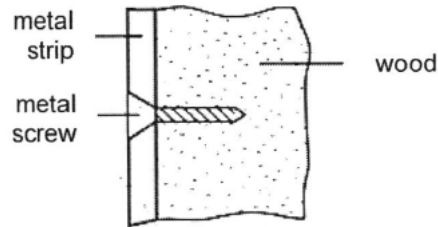
When zinc foil is placed in an aqueous solution containing both magnesium chloride and copper(II) sulfate, which element is displaced?

- A chlorine
- B copper
- C hydrogen
- D magnesium

Q10

An old railway carriage is being restored by having metal strips secured to the outside of the wooden carriage by means of screws.

After a few weeks of being exposed to the wind and rain, the screws are heavily corroded but the metal strips are not.



Which two metals would give this result?

	screw	strip
A	copper	steel
B	copper	zinc
C	steel	copper
D	steel	magnesium

Answers

Metals Test 3.0

Q1 C

Q2 D

Q3 A

Q4 D

Q5 A

Q6 B

Q7 B

Q8 B

Q9 B

Q10 C

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