

Uses of metals

Question Paper 2

Level	IGCSE
Subject	Chemistry (0620/0971)
Exam Board	Cambridge International Examinations (CIE)
Topic	Metals
Sub-Topic	Uses of metals
Booklet	Question Paper 2

Time Allowed: 19 minutes

Score: /16

Percentage: /100

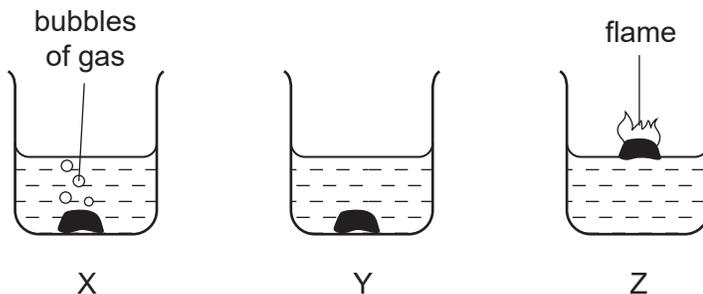
Grade Boundaries:

9	8	7	6	5	4	3	2	1
>85%	75%	68%	60%	53%	48%	40%	33%	<25%

1. Which statement is **not** correct?

- A** Aluminium is used in food containers because of its resistance to corrosion.
- B** Aluminium is used in the manufacture of aircraft because of its strength and low density.
- C** Mild steel is used in car bodies because of its strength and low density.
- D** Stainless steel is used in chemical plant because of its strength and resistance to corrosion.

2. The diagrams show what happens when three different metals are added to water.



What are X, Y and Z?

	X	Y	Z
A	calcium	copper	potassium
B	copper	calcium	potassium
C	potassium	calcium	copper
D	potassium	copper	calcium

3. Some properties of aluminium are listed.

- 1 It has mechanical strength.
- 2 It is resistant to corrosion.
- 3 It has a low density.
- 4 It conducts heat.

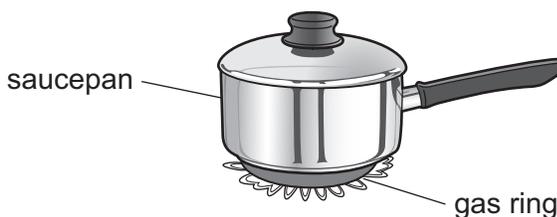
Which **three** properties make aluminium useful for making the bodies of aircraft?

- A** 1, 2 and 3 **B** 1, 2 and 4 **C** 1, 3 and 4 **D** 2, 3 and 4

4. Which statement about the uses of metals is correct?

- A** Aluminium is used in the manufacture of aircraft because of its strength and high density.
- B** Copper is used in electrical wiring because of its strength and high density.
- C** Mild steel is used in the manufacture of car bodies because of its strength and resistance to corrosion.
- D** Stainless steel is used in the construction of chemical plant because of its strength and resistance to corrosion.

5. Copper is sometimes used to make cooking utensils.



Three properties of copper are given.

- 1 corrosion resistant
- 2 good conductor of electricity
- 3 good conductor of heat

Which properties make copper a suitable metal for making cooking utensils?

- A** 1 and 3 **B** 1 only **C** 2 and 3 **D** 2 only

6. Copper is a transition element used to make saucepans.

Which property is **not** correct for copper?

- A** good conductor of heat
- B** insoluble in water
- C** low melting point
- D** malleable (can be hammered into shape)

7. The bodies of aircraft are often made using aluminium.

Which two properties of aluminium make it suitable for this use?

	property 1	property 2
A	good conductor of electricity	good conductor of heat
B	good conductor of electricity	strong
C	good conductor of heat	low density
D	strong	low density

8. Aluminium is an important metal with many uses.

Some of its properties are listed.

- 1 It is a good conductor of heat.
- 2 It has a low density.
- 3 It has an oxide layer that prevents corrosion.

Which set of properties help to explain the use of aluminium for cooking and storing food?

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

9 Which uses of the metals shown are both correct?

	aluminium	stainless steel
A	aircraft bodies	cutlery
B	car bodies	aircraft bodies
C	chemical plant	food containers
D	food containers	car bodies

10 Iron is a metal that rusts in the presence of oxygen and water.

Mild steel is used for1..... and is prevented from rusting by2..... .

Stainless steel does not rust. It is produced by3..... iron with another metal.

Which words complete gaps 1, 2 and 3?

	1	2	3
A	car bodies	greasing	covering
B	car bodies	painting	mixing
C	cutlery	greasing	covering
D	cutlery	painting	mixing

11 Which row describes how the metals are used?

	mixed with zinc to form brass	used to galvanise iron
A	aluminium	tin
B	aluminium	zinc
C	copper	tin
D	copper	zinc

12 Metal M is mixed with copper to produce brass.

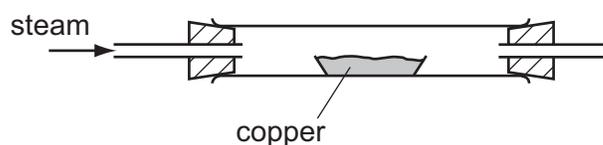
What is M?

- A chromium
- B nickel
- C vanadium
- D zinc

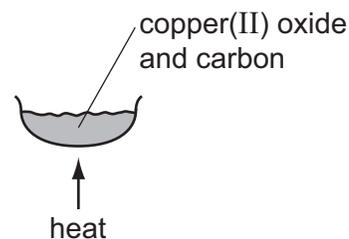
13. Two experiments are carried out.

In experiment 1, copper is heated with steam.

In experiment 2, copper(II) oxide is heated with carbon.



experiment 1



experiment 2

Which row describes what happens in experiments 1 and 2?

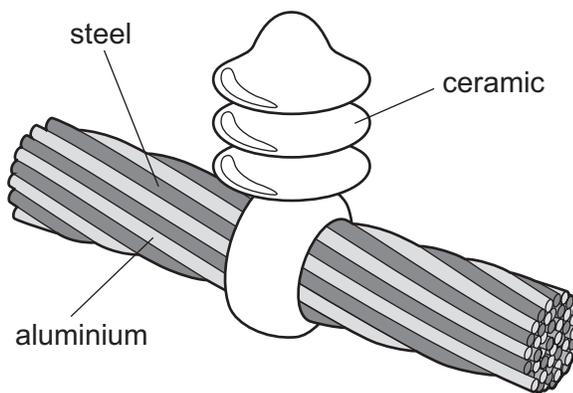
	experiment 1	experiment 2
A	no reaction	no reaction
B	no reaction	reaction
C	reaction	no reaction
D	reaction	reaction

14 Steel is made by adding 1 to molten iron to remove 2 from the iron.
 Stainless steel is 3 resistant to corrosion than mild steel.

Which words complete the gaps 1, 2 and 3?

	1	2	3
A	basic oxides	acidic impurities	less
B	basic oxides	carbon	more
C	oxygen	acidic impurities	less
D	oxygen	carbon	more

15 The diagram shows a section of an overhead power cable.



Which statement explains why a particular substance is used?

- A** Aluminium has a low density and is a good conductor of electricity.
- B** Ceramic is a good conductor of electricity.
- C** Steel can rust in damp air.
- D** Steel is more dense than aluminium.

16 Brass is an alloy of two metals.

Which row gives a correct use for the two metals from which brass is made?

	metal 1	metal 2
A	used for electrical wiring	used for galvanising steel
B	used for galvanising steel	used for making aircraft
C	used for making aircraft	used for making cutlery
D	used for making cooking pans	used for electrical wiring