

Prelim Revision MCQ20_C

Write the title of this Exercise as a heading: Prelim Revision MCQ20_C



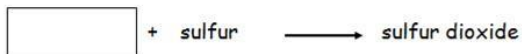
1.

Which of the following compounds contains oxygen?

- A calcium chloride
- B lithium sulfide
- C potassium nitrate
- D sodium chloride

2.

Which element is missing from the word equation?



- A carbon
- B sulfur
- C hydrogen
- D oxygen

3.

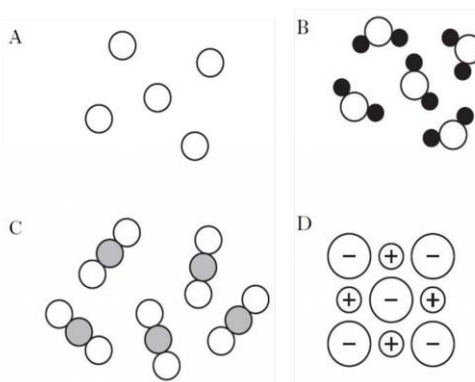
Which of the following magnesium compounds does **not** contain oxygen?

- A Magnesium oxide
- B Magnesium sulphate
- C Magnesium sulphide
- D Magnesium sulphite

11.

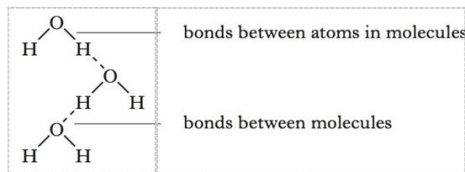
The structure of substances can be represented by models.

Which of the following models shows neon?



12.

The diagram shows two types of bonds in water, bonds between atoms in the molecules and bonds between molecules.



Which line in the table correctly shows how strong these bonds are?

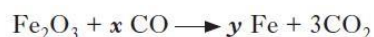
	Bonds between atoms in molecules	Bonds between molecules
A	weak	weak
B	weak	strong
C	strong	strong
D	strong	weak

13.

An acidic solution contains

- A only hydrogen ions
- B equal numbers of hydrogen and hydroxide ions
- C more hydrogen ions than hydroxide ions
- D more hydroxide ions than hydrogen ions.

4.



This equation will be balanced when

- A $x = 1$ and $y = 2$
- B $x = 2$ and $y = 2$
- C $x = 3$ and $y = 2$
- D $x = 2$ and $y = 3$.

5.

The rate of rusting on powdered iron will be greater than on a lump of iron because ...

- A iron is more reactive as a powder
- B the surface area of iron is greater on a lump of iron
- C the more finely divided a substance is, the slower it will react
- D air and moisture can reach more atoms of iron in the powder than in the lump

6.

Which of the following substances is **not** a salt?

- A Copper sulphate
- B Sodium oxide
- C Magnesium chloride
- D Calcium nitrate

7.

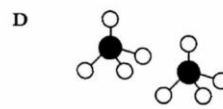
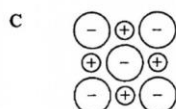
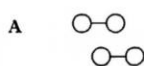
Which of the following numbers is the same for lithium and oxygen atoms?

- A atomic number
- B number of occupied electron shells
- C mass number
- D number of outer electrons

14.

The structure of substances can be represented by models.

Which models shows sodium chloride?

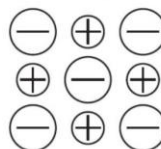


15.

The table shows information about four compounds.

Compound	Solubility in water	Conductivity when molten
1	soluble	conducts
2	soluble	does not conduct
3	insoluble	conducts
4	insoluble	does not conduct

For which of the compounds is the structure below correct?



- A Compounds 1 and 2
- B Compounds 3 and 4
- C Compounds 1 and 3
- D Compounds 2 and 4

16.

The charge on the iron ion in $\text{Fe}_2(\text{SO}_4)_3$ is

- A 2^+
- B 3^+
- C 2^-
- D 3^- .

17.

If the mass number is 23, how many neutrons are in an atom of sodium?

- A 11
- B 23
- C 12
- D 10

8.

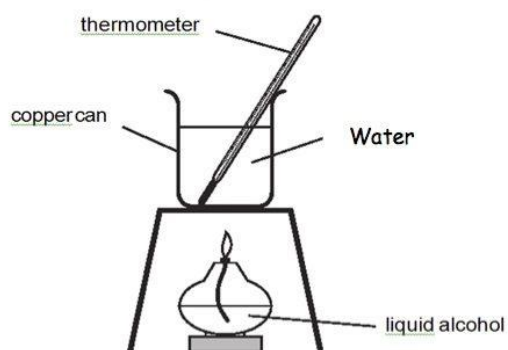
Which of the following particles contains a different number of electrons from the others?

You may wish to use the data booklet to help you.

- A Cl^-
- B S^{2-}
- C Ar
- D Na^+

9.

The apparatus shown below can be used to measure the energy released on combustion of fuel.



The liquid alcohol container has a lid which is only removed for the burning.

Why is it important to keep a lid on the alcohol burner?

- A The mass of alcohol burned may be underestimated due to evaporation
- B The mass of alcohol burned may be overestimated because alcohol reacts with oxygen in the air
- C The mass of alcohol may overestimated due to evaporation
- D The mass of alcohol burned may be underestimated because alcohol reacts with oxygen in the air

18.

The isotopes of carbon and oxygen are given in the table.

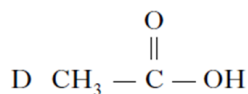
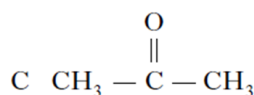
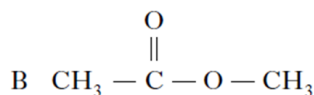
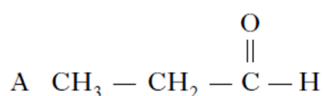
Isotopes of carbon	${}^1_6\text{C}$	${}^{13}_6\text{C}$	${}^{14}_6\text{C}$
Isotopes of oxygen	${}^{16}_8\text{O}$	${}^{17}_8\text{O}$	${}^{18}_8\text{O}$

A molecule of carbon dioxide with mass 46 could contain

- A one ${}^{12}\text{C}$ atom and two ${}^{16}\text{O}$ atoms
- B one ${}^{14}\text{C}$ atom and two ${}^{18}\text{O}$ atoms
- C one ${}^{12}\text{C}$ atom, one ${}^{16}\text{O}$ atom and one ${}^{18}\text{O}$ atom
- D one ${}^{14}\text{C}$ atom, one ${}^{16}\text{O}$ atom and one ${}^{18}\text{O}$ atom.

19.

Which of the following compounds is an ester?



10.

When hydrochloric acid with a pH of 3 is diluted with water to give a solution with a pH of 6, the concentration of

- A $H^+(aq)$ ions decreases
- B $OH^-(aq)$ ions decreases
- C $H^+(aq)$ ions and the concentration of $OH^-(aq)$ ions become equal
- D $H^+(aq)$ ions and the concentration of $OH^-(aq)$ ions remain unchanged

20.

The substance tin (IV) chloride contains

- A four chlorine atoms and one tin atom
- B four tin atoms and four chlorine atoms
- C four tin atoms and one chlorine atom
- D one tin atom and one chlorine atom