

# Prelim Revision MCQ20\_B

Write the title of this Exercise as a heading: Prelim Revision MCQ20\_B



1.

A compound burns in air. The only products of the reaction are carbon dioxide, sulphur dioxide and water vapour.

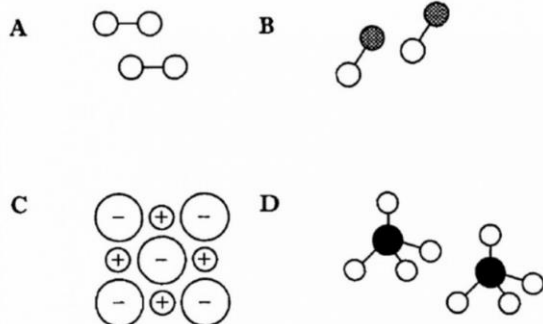
The compound **must** contain

- A carbon and hydrogen only
- B carbon and sulphur only
- C carbon, hydrogen and sulphur
- D carbon, hydrogen, sulphur and oxygen.

2.

The structure of substances can be represented by models.

Which models shows an element?



3.

Ammonia dissolves in water to produce a solution with a pH of

- A 1
- B 4
- C 7
- D 11.

11.

Element X reacts with oxygen to produce a white crystalline solid.

The solid has a high melting point and conducts electricity when molten or in solution.

The electron arrangement for element X is most likely

- A 2, 8, 1
- B 2, 8, 5
- C 2, 8, 7
- D 2, 8, 8

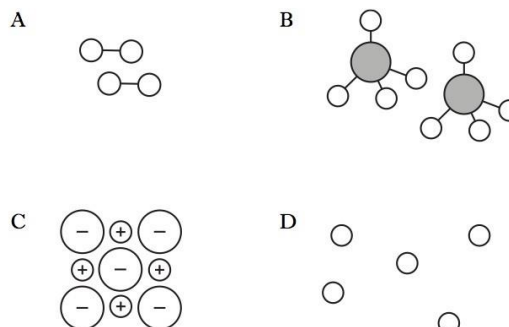
12.

Which of the following compounds exists as diatomic molecules?

- A Carbon monoxide
- B Sulphur dioxide
- C Nitrogen trihydride
- D Carbon tetrachloride

13.

The structures of substances can be represented by models. Which model shows an ionic substance?



4.

Which of the following statements is true for lithium hydroxide solution?

- A It has a pH less than 7.
- B It contains no  $\text{H}^+(\text{aq})$  ions.
- C It is an example of a strong base.
- D It reacts with an acid to form hydrogen gas.

5.

Which of the following pairs of reactants would produce hydrogen most slowly?

- A Magnesium powder and  $4 \text{ mol l}^{-1}$  hydrochloric acid
- B Magnesium powder and  $2 \text{ mol l}^{-1}$  hydrochloric acid
- C Magnesium ribbon and  $4 \text{ mol l}^{-1}$  hydrochloric acid
- D Magnesium ribbon and  $2 \text{ mol l}^{-1}$  hydrochloric acid

6.

Which line in the table describes a **neutron**?

	Mass	Charge
A	1	-1
B	negligible	0
C	1	+1
D	1	0

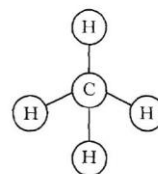
7.

Which of the following is an element?

- A Ammonia
- B Carbon dioxide
- C Fluorine
- D Methane

14.

The diagram below shows a methane molecule.



Which of the following statements correctly describes this molecule?

- A The atoms are held together by weak bonds.
- B The atoms are held together by strong bonds.
- C The ions are held together by weak bonds.
- D The ions are held together by strong bonds.

15.

Which of the following elements exists as diatomic molecules?

- A Carbon
- B Helium
- C Nitrogen
- D Sulphur

16.

What is the charge on the zinc ion in the compound  $\text{Zn}_3(\text{PO}_4)_2$ ?

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

17.

Which compound would **not** neutralise hydrochloric acid?

- A Sodium carbonate
- B Sodium chloride
- C Sodium hydroxide
- D Sodium oxide

8.

Lemonade can be made by dissolving sugar, lemon and carbon dioxide in water.

From the following list, choose which is the solvent for lemonade?

A	sugar
B	lemon
C	carbon dioxide
D	water

9.

An alcohol has the formula  $C_2H_5OH$ .

Which of the following diagrams could represent a molecule of this alcohol?

**A**

**B**

**C**

**D**

**Key**

- hydrogen
- carbon
- oxygen

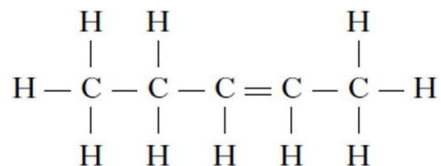
10.

The molecules shown below could be:



- A sulphur dioxide
- B carbon monoxide
- C carbon tetrachloride
- D sulphur trioxide

18.



The name of the above compound is

- A but-2-ene
- B pent-2-ene
- C but-3-ene
- D pent-3-ene.

19.

Which hydrocarbon will boil most easily?

**A**

**B**

**C**

**D**

20.

Which oxide, when shaken with water, would leave the pH unchanged?

- A Calcium oxide
- B Carbon dioxide
- C Sulphur dioxide
- D Zinc oxide