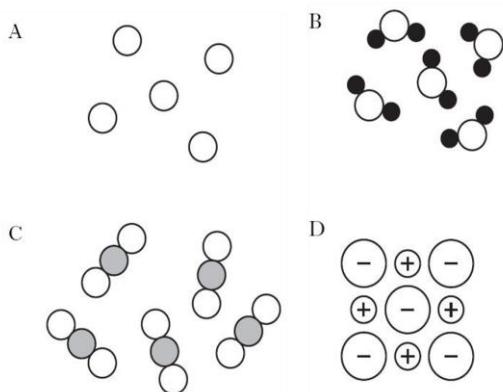


Prelim Revision MCQ20_A

Write the title of this Exercise as a heading: Prelim Revision MCQ20_A



1. The structure of substances can be represented by models. Which of the following models shows an element?



2.

Sulfur	
Boiling point	445 °C
Melting point	113 °C

When sulfur cool from 120°C to 100°C it changes from

- A liquid to gas
B gas to liquid
C liquid to solid
D solid to liquid.
3. Which of the following would produce the most dilute solution?
- A 5 g of copper sulfate dissolved in 50 cm³ of water
B 5 g of copper sulfate dissolved in 100 cm³ of water
C 10 g of copper sulfate dissolved in 50 cm³ of water
D 10 g of copper sulfate dissolved in 100 cm³ of water

11. An atom has atomic number 17 and mass number 35. The number of neutrons in the atom is

- A 17
B 18
C 35
D 52

12. What is the formula for dinitrogen monoxide?
- A NO
B NO₂
C N₂O
D N₂O₄

13. 1 mole of sodium chloride can be used to prepare
- A 250 cm³ of a 0.4 mol l⁻¹ solution
B 250 cm³ of a 4 mol l⁻¹ solution
C 200 cm³ of a 0.5 mol l⁻¹ solution
D 200 cm³ of a 1 mol l⁻¹ solution.

4.

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

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

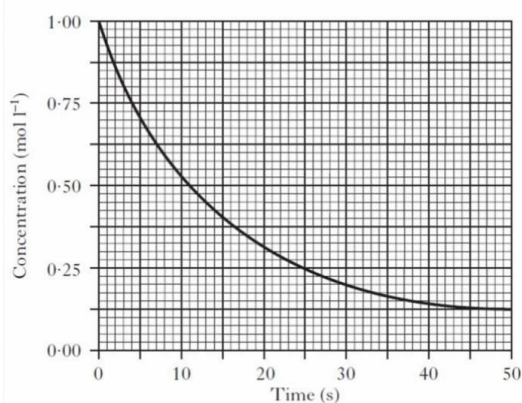
5.

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

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

6.

The graph below shows the variation of concentration of a reactant with time as a reaction proceeds.



During the first 25 s, the average reaction rate, in $\text{mol l}^{-1} \text{ s}^{-1}$, is

- A 0.01
- B 0.02
- C 0.03
- D 0.04.

14.

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

Which of the following statements is correct?

- A Compounds 1 and 2 are ionic.
- B Compounds 3 and 4 are ionic.
- C Compounds 1 and 3 are ionic.
- D Compounds 2 and 4 are ionic.

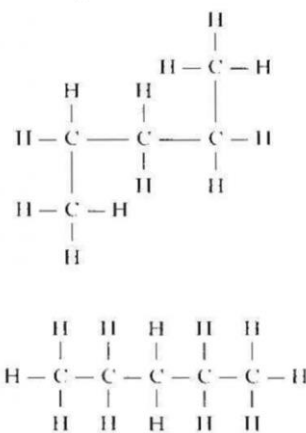
15.

Which of the following substances has the smallest gram formula mass?

- A CO
- B CO_2
- C N_2
- D CH_4

16.

Examine the two hydrocarbon structures below.



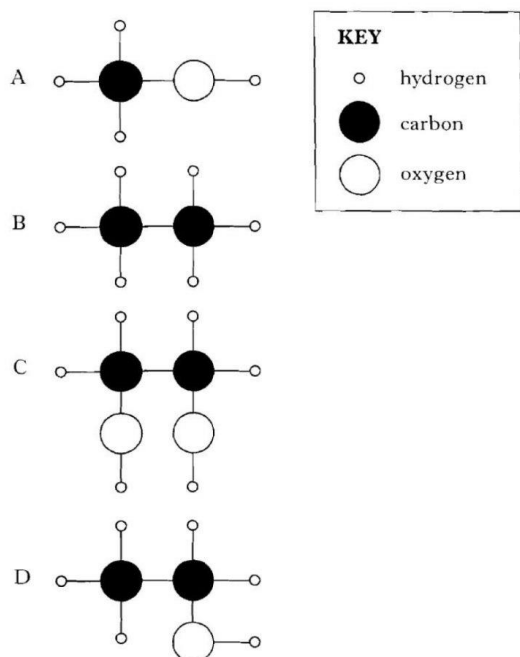
The two structures represent

- A the same hydrocarbon
- B Different hydrocarbons
- C Isomers
- D Isotopes

7.

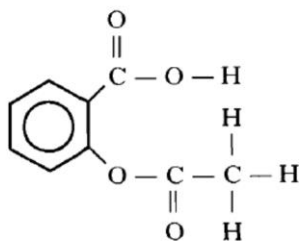
An alcohol has the formula C_2H_5OH .

Which diagram could represent a molecule of this alcohol?



8.

Aspirin is one of the most widely used pain relievers in the world. It has the structure:

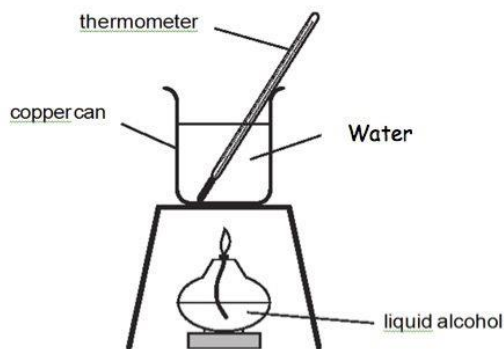


Which functional groups are present in aspirin?

- A Carboxyl and hydroxyl
- B Carboxyl and ester
- C Ester and hydroxyl
- D Only ester

17.

A pupil burned 3.6 g of butanol (C_4H_9OH) using the apparatus shown below.



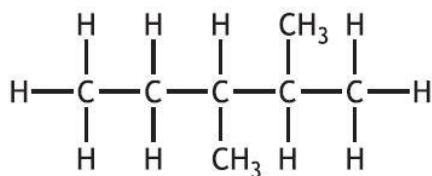
In their lab book, the pupil recorded the following information.

Temp increase	$27^{\circ}C$
Volume of water	1.2 litres

How much energy was released by the burning butanol?

- A 37.6 kJ
- B 135.4 kJ
- C 406.3 kJ
- D 135 433.0 kJ

18.



The name of the above compound is

- A 2,3-dimethylpropane
- B 3,4-dimethylpropane
- C 2,3-dimethylpentane
- D 3,4-dimethylpentane.

9.

Which of the following compounds exists as diatomic molecules?

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

10.

Which of the following is the electron arrangement for a metal?

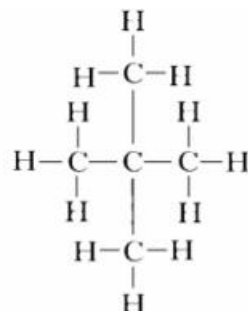
- A 2, 8, 1
- B 2, 8, 5
- C 2, 8, 7
- D 2, 8, 8

19.

Which line in the table correctly describes an electron?

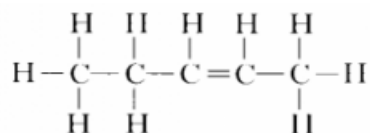
	Mass	Charge
A	negligible	+1
B	negligible	-1
C	1	+1
D	1	0

20.

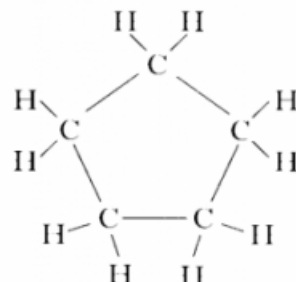


Which of the following compounds is an isomer of the one shown above?

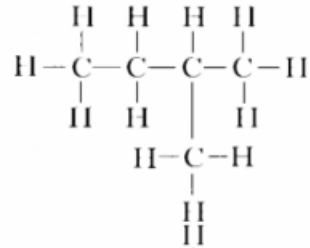
A



B



C



D

