

Prelim Revision MCQ20_D

Write the title of this Exercise as a heading: Prelim Revision MCQ20_D



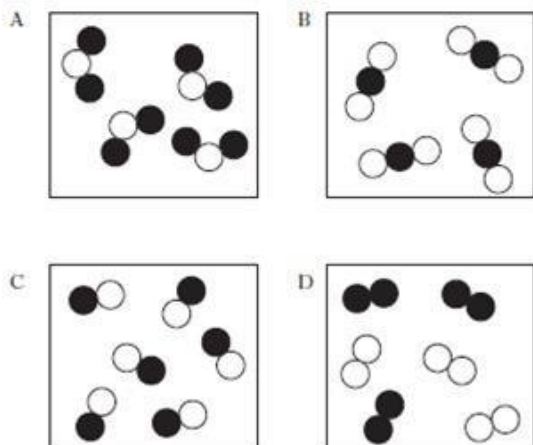
1.

In a chemical reaction a gas was produced. The gas could be identified as hydrogen if it

- A burns with a pop
- B relights a glowing splint
- C turns damp pH paper red
- D turns limewater cloudy.

2.

Which of the following diagrams represents a mixture?



3.

Which of the following substances dissolves in water to give a solution of pH greater than 7?

- A Ammonia
- B Carbon dioxide
- C Sulphur dioxide
- D Sodium chloride

11.

Which of the following pairs of chemicals react to produce a gas that turns lime water milky?

- A Calcium carbonate and dilute hydrochloric acid
- B Copper oxide and dilute sulphuric acid
- C Copper and dilute hydrochloric acid
- D Magnesium and dilute sulphuric acid

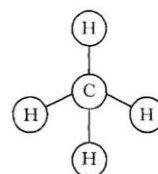
12.

Which of the following statements describes the concentrations of $\text{H}^+(\text{aq})$ and $\text{OH}^-(\text{aq})$ ions in pure water?

- A The concentrations of $\text{H}^+(\text{aq})$ and $\text{OH}^-(\text{aq})$ ions are equal.
- B The concentrations of $\text{H}^+(\text{aq})$ and $\text{OH}^-(\text{aq})$ ions are zero.
- C The concentration of $\text{H}^+(\text{aq})$ ions is greater than the concentration of $\text{OH}^-(\text{aq})$ ions.
- D The concentration of $\text{OH}^-(\text{aq})$ ions is greater than the concentration of $\text{H}^+(\text{aq})$ ions.

13.

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.

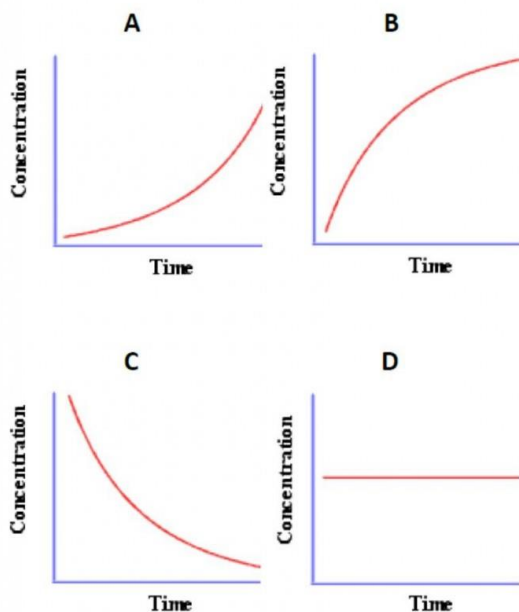
4.

If a reaction rate was measured by a change in volume of gas produced over time, the units of the reaction rate would be :

- A g s^{-1}
- B $\text{cm}^3 \text{s}^{-1}$
- C $\text{mol l}^{-1} \text{s}^{-1}$
- D s^{-1}

5.

Examine the graphs below.



Which of the graphs shows the change in the concentrations of **reactants** in a chemical reaction over time?

6.

Helium, neon and argon are in the same column of the Periodic Table because they are

- A non-metals
- B found in air
- C gases at room temperature
- D elements with similar chemical properties.

14.

The pH of the solution formed when ammonia is bubbled into water is most likely to be

- A 3
- B 5
- C 7
- D 9.

15.

Which of the following are isotopes of chlorine ?

- A An atom with 17 protons & 18 neutrons *and* an atom with 17 protons & 20 neutrons
- B An atom with 17 protons & 18 neutrons *and* an atom with 20 protons & 18 neutrons
- C An atom with 17 protons & 18 neutrons *and* an atom with 17 protons & 18 neutrons
- D An atom with 18 protons & 18 neutrons *and* an atom with 17 protons & 18 neutrons

16.

Which element show similar chemical properties to chlorine?

- A Argon
- B Iodine
- C Oxygen
- D Sulphur

7.

Which element is an alkali metal?

- A Aluminium
- B Calcium
- C Copper
- D Sodium

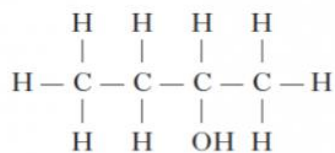
8.

The table shows information about some particles.

Particle	Number of		
	protons	neutrons	electrons
A	9	10	10
B	11	12	11
C	15	16	15
D	19	20	18

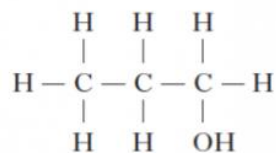
Identify the particle which is a negative ion.

17.

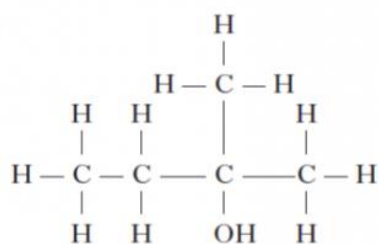


Which of the following compounds is an isomer of the one above?

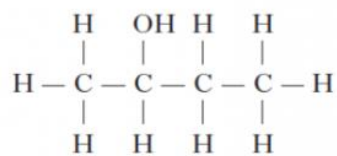
A



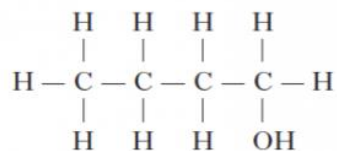
B



C



D



18.

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

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

9.

The diagram shows part of the Periodic Table.

Column	1	2	3	4	5	6	7	0
							F	
		Mg		P				
	K							
						I	Xe	

Which **two** elements show similar chemical properties?

- A F and I
- B Mg and P
- C Mg and K
- D I and Xe

10.

The formula for magnesium sulphite is

- A MgS
- B MgSO₃
- C MgSO₄
- D MgS₂O₃

19.

Which of the following consumer products is **least** likely to contain esters?

- A Solvents
- B Perfumes
- C Toothpastes
- D Flavourings

20.

Propanol was burned for 5 minutes, the mass of fuel burned was 4g.

The temperature of the water increased from 14°C to 32°C.

There was 60cm³ of water in the container.

The energy released by the burning alcohol was

- A 4.5 kJ g⁻¹
- B 451.4 kJ g⁻¹
- C 112.9 kJ g⁻¹
- D 1.13 kJ g⁻¹