GCSE Chemistry A (Gateway Science)

J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 1

C1: Particles

Multiple Choice Questions

1 Two isotopes of neon are

$^{22}_{10}Ne$ and $^{20}_{10}Ne$

The two isotopes of neon have different:

A Charges

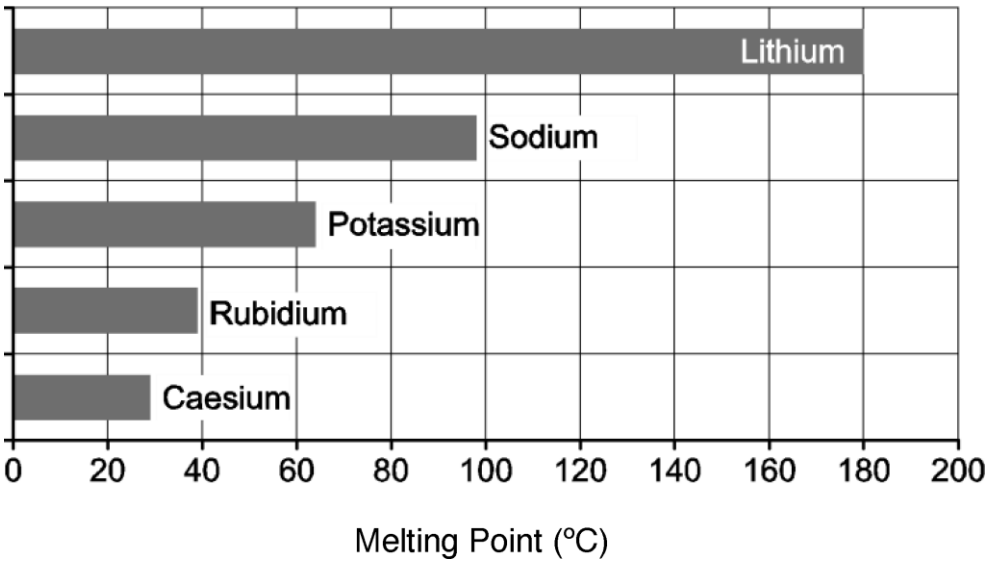
B Numbers of electrons

C Numbers of neutrons **D**

Numbers of protons

Your answer C **[1]**

2 The bar chart shows the melting points of Group 1 elements.



What are the melting points of rubidium and caesium?

	Melting point of rubidium (°C)	Melting point of caesium (°C)
A	39	29
B	40	25
C	29	41
D	41	25

Your answer A **[1]**

3 What is the best description of the particles in a liquid?

	Distance between particles	Movement of particles
A	Close together	in continuous random motion
B	Close together	vibrating about a fixed point
C	Far apart	in continuous random motion
D	Far apart	vibrating about a fixed point

Your answer A **[1]**

4 A number of scientists contributed to the development of the atomic model.

Which of these scientists discovered the electron?

A Bohr

B Dalton

C Rutherford

D Thomson

Your answer D **[1]**

5 What is the typical size of the radius of an atom?

A 10^{-2} m

B 10^{-5} m

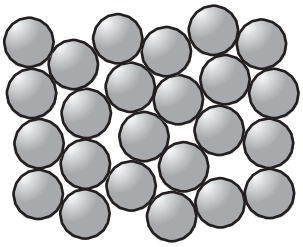
C 10^{-10} m

D 10^{-20} m

100pm
↓
100×10^{-12} m
↓
10^{-10} m

Your answer C **[1]**

6 This particle model shows the particles in iron.



What state does this particle model represent?

A Gas

B Liquid

C Plasma

D Solid

Your answer B **[1]**

7 Substances can exist in three states of matter.

Solid ⇌ Liquid ⇌ Gas

Y

What is change of state **Y** called?

A Condensing

B Evaporating

C Freezing

D Melting

Your answer A **[1]**

8 Which of these is a **physical** change?

A Burning wood

B Melting wax

C Neutralising an acid

D Rusting iron

Your answer B **[1]**

9 In 1803, John Dalton suggested that all matter is made from atoms.

The electron was the first subatomic particle to be discovered by J.J. Thomson in 1897.

J.J. Thomson developed Dalton's model to show the presence of electrons.

What was J.J. Thomson's model called?

A Bohr model

B Particle model

C Planetary model

D Plum-pudding model

Your answer D **[1]**

10 A sodium atom can be shown as:

$^{23}_{11}Na$

How many protons, neutrons and electrons are in a sodium atom?

A 11 protons, 12 neutrons, 11 electrons

B 11 protons, 11 neutrons, 12 electrons

C 12 protons, 12 neutrons, 11 electrons

D 12 protons, 11 neutrons, 11 electrons

Your answer A **[1]**

Total Marks for Question Set 1: 10