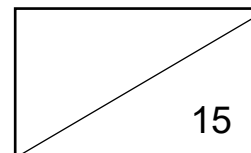


Self Revision Review

Chapter 8: Atoms and Molecules



Name: _____ Class: _____ Date: _____

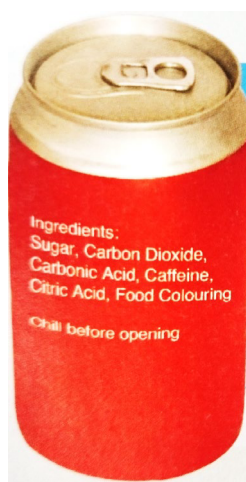
Section A: Multiple-Choice Questions (MCQs) – 3 marks

1	2	3

1 Which of the following represents a molecule of an element?

- A P
- B P₂
- C PQ
- D 2P

2 The ingredients of a carbonated drink are listed on the drink can below.



chemical formula of the ingredients	
sugar	C ₁₂ H ₂₂ O ₁₁
carbon dioxide	CO ₂
carbonic acid	H ₂ CO ₃
caffeine	C ₈ H ₁₀ N ₄ O ₂
citric acid	C ₆ H ₈ O ₇

Which of the following is **not** true about the substances listed in the table?

- A The atomic number of the carbon atom is the same in all the substances.
- B The carbon dioxide molecule has two types of elements.
- C The mass number of the carbon atom is different in each substance.
- D The sugar molecule contains the greatest number of atoms.

3 An atom is electrically neutral because:

- A it is made up of sub-atomic particles which have no charges.
- B it has an equal number of positive and negative charges.
- C it contains both positive and negative charges in its nucleus.
- D it does not take part in any chemical reaction.

Section B: Structured Questions – 5 marks

1 Circle **TRUE** if the following statements are **true** and circle **FALSE** if they are **false**.

If the statement is **false**, rewrite the statement so that it becomes correct.

- (a) Atoms of an element have a unique number of protons. TRUE / FALSE

Correct statement:

.....

- (b) Each atom has at least a proton, a neutron and an electron. TRUE / FALSE

Correct statement:

.....

- (c) The electrons move around the nucleus in regions known as electron shells. TRUE / FALSE

Correct statement:

.....

- (d) Among the sub-atomic particles, protons contribute most to the mass of an atom. TRUE / FALSE

Correct statement:

.....

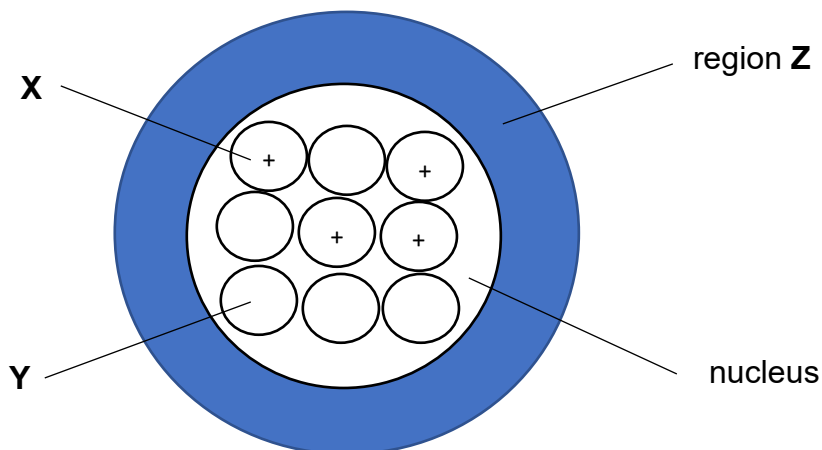
- (e) The nucleon number of an atom is the total number of protons and electrons in an atom. TRUE / FALSE

Correct statement:

.....

Section C: Free Response Questions – 7 marks

- 1 The diagram below shows a simplified structure of an atom. **X** and **Y** are sub-atomic particles found in the nucleus. Region **Z** contains electrons surrounding the nucleus. The atom is electrically neutral.



- (a) Using information from the diagram only, state the number of protons, electrons and neutrons found in the atom. Explain how you arrived at your answer.

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..... [5]

- (b) Identify the element that this atom is from the periodic table by writing down both the name and atomic symbol of this element.

name of element:

atomic symbol: [2]