

Chapter: 6.4 (The Periodic Table)

1. Copy and complete the following sentences.

The Periodic Table lists all the **elements** in order of increasing **atomic number**. The rows are called **Periods** and the columns are called **groups**. It is arranged so that elements in the same **columns** have similar chemical properties. Non-metals are found on the **right** of the table.

2. Use the Periodic Table to answer the following questions.

a) Name the element at the top of group 4.

Ans. Carbon.

b) Name the element in group 7 period 3.

Ans. Chlorine.

c) Name a metal in group 5.

Ans. Bismuth.

d) Name a non-metal in group 3.

Ans. Boron.

e) In which group is the element with the atomic number 50.

Ans. Group-4, period-5 (Sn).

3. Define the following:

I) **Period:** The horizontal rows in a periodic table are called periods. There are seven periods in all. The first period has only two elements, hydrogen and helium.

II) **Groups:** The vertical columns in a periodic table are called groups. There are 8 groups in all.

4. Name the following groups in Periodic table.

Ans. i) Gr-1- Alkali metal.

ii) Gr-2- Alkaline earth metal.

iii) Gr- 7- Halogens.

5. Write four properties for each of the following:

- a) **Alkali metals:** i) They have 1 electron in their outermost shell.
ii) These are solids with low melting point.
iii) These are soft metals.
iv) They react with forming an alkali and hydrogen gas.

- b) **Noble gas:** i) They have full outermost shell.
ii) They are non-metals.
iii) They are gase and colorless.
iv) They are unreactive.

- c) **Halogens:** i) They have 7 electrons in their outermost shell.
ii) They are non-metals.
iii) They are colored.
iv) They are all diatomic.

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