

Class-9(Chemistry)

Revision work sheet for mid-term assessment

Chapter-4

Periodic table

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❖ Creative questions:

1. P, Q and R three elements having proton number 21, 29 and 18 respectively in nucleus.

- Write down the octave rule.
- Why is calcium metal called alkaline metal? Explain it.
- Find out the position of P element in the periodic table with the help of electronic configuration.
- Are both Q and R elements follow the general rule of electronic configuration? Analyze it.

2.

Li			X
Y	Z	-----	Cl
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[Here, X, Y and Z are symbolic; they are not true symbols of any elements]

- Define electronic configuration of element.
- Mention the exceptions of periodic table in short.
- Between X and Cl which one is more electronegative and why? Explain.
- Arrange X, Y and Z elements according to their atomic radius and ionization energy with logic.

3.

Element	X	Two protons less of the indicated atom than Cl.
	Y	Situated at the 4 th position at the right side of Ca in periodic table.
	Z	Situated in the 4 th period and group no. II.

- What is called coinage metal?
- Among N, O, F and Br elements, which have the similar chemical characteristics and why?
- By the electronic configuration find the position of "Y" in periodic table.
- Analyze the order of the electron affinity of the three elements of X, Y and Z.

Questions:

1. Mention the modern periodic law and Mandeleev's periodic law.
2. Mention the law of octaves and law of triads.
3. What is atomic radius?
4. Explain the order of atomic size of the first three metals of Group-1 in periodic table.
5. Explain the order of atomic size of Na, Mg and Cl in periodic table.
6. What is ionization energy?
7. Explain the order of ionization energy of Li, Na and K in periodic table.
8. Between Na and Mg, which has the higher ionization energy, explain?
9. What is electron affinity?
10. Between Ca and Mg, which has the higher electron affinity, explain?
11. Among C, N and O, which has the higher electron affinity, explain?
12. What is electronegativity?
13. Between F and Cl which one is more electronegative and why? Explain.
14. Determine the positions of the following elements in periodic table from their electronic configurations:
15. K, Mg, Cu, Zn, P, Al, Cl and Ar
16. Why He is called inert gas? Why Ne is called inert gas?
17. Why Ca, Mg and Be are called alkaline earth metals?
18. Why Li, Na and K are called alkaline metals?
19. Why Cu, Ag and Au are called coin metals?
20. Why group-17 elements are known as halogens?
21. Why K, Ca and Sc elements are known as metals?
22. Why N, O and F elements are known as nonmetals?
23. Why Si is known as submetal or metalloid?
24. Among N, O, F and Br elements, which have the similar chemical characteristics and why?
25. Write exceptions of modern periodic table.
26. What is the main basis of modern periodic table and why?