

Classification of Elements and Periodicity – MCQs

1. Who is known as the father of the modern periodic table?

- A) Mendeleev
- B) Newlands
- C) Dobereiner
- D) Moseley

2. The modern periodic law states that the properties of elements are a periodic function of their:

- A) Atomic mass
- B) Number of neutrons
- C) Atomic number
- D) Mass number

3. How many periods are there in the modern periodic table?

- A) 7
- B) 8
- C) 9
- D) 6

4. Elements in the same group have the same:

- A) Atomic number
- B) Number of neutrons
- C) Number of valence electrons
- D) Mass number

5. The horizontal rows in the periodic table are called:

- A) Periods
- B) Groups
- C) Families
- D) Series

6. The vertical columns in the periodic table are called:

- A) Rows
- B) Periods
- C) Groups
- D) Blocks

7. Which of the following is a noble gas?

- A) Nitrogen
- B) Oxygen
- C) Neon
- D) Fluorine

8. Alkali metals belong to which group of the periodic table?

- A) Group 2
- B) Group 17
- C) Group 1
- D) Group 18

9. Which of the following elements is the most electronegative?

- A) Fluorine

- B) Oxygen
- C) Nitrogen
- D) Chlorine

10. Which of the following decreases across a period from left to right?

- A) Atomic number
- B) Atomic size
- C) Electronegativity
- D) Nuclear charge

11. In which group are halogens placed?

- A) Group 1
- B) Group 16
- C) Group 17
- D) Group 18

12. Which period contains the maximum number of elements?

- A) First
- B) Second
- C) Sixth
- D) Seventh

13. Elements in the same period have the same:

- A) Number of valence electrons
- B) Chemical properties
- C) Number of electron shells
- D) Atomic number

14. Which block contains transition elements?

- A) s-block
- B) p-block
- C) d-block
- D) f-block

15. The ability of an atom to attract electrons is called:

- A) Ionization energy
- B) Electron affinity
- C) Electronegativity
- D) Atomic radius

16. What is the valency of elements in Group 2?

- A) 1
- B) 2
- C) 3
- D) 0

17. Mendeleev arranged the elements in order of increasing:

- A) Atomic number
- B) Atomic mass
- C) Valency
- D) Density

18. Which element is placed in Group 1 but is not an alkali metal?

- A) Lithium
- B) Sodium
- C) Hydrogen
- D) Potassium

19. Which property generally increases down a group?

- A) Ionization energy
- B) Electronegativity
- C) Atomic size
- D) Electron affinity

20. The elements placed in the f-block are called:

- A) Alkali metals
- B) Transition elements
- C) Inner transition elements
- D) Halogens

 **Answer Key**

- 1. D
- 2. C
- 3. A
- 4. C
- 5. A
- 6. C
- 7. C
- 8. C
- 9. A
- 10. B
- 11. C
- 12. C
- 13. C
- 14. C
- 15. C
- 16. B
- 17. B
- 18. C
- 19. C
- 20. C