

PERIODIC TABLE-1

1. In a group of the periodic table which of the following terms increases from top to bottom?

- I. The atomic radius
 - II. The first ionization energy
 - III. The number of valence electrons
- A. I B. II C. I and II D. II and III E. I, II and III

2. Given the elements; ${}_5\text{B}$, ${}_6\text{C}$, ${}_7\text{N}$ and ${}_8\text{O}$. Which of the following is the correct order of their decreasing ionization energies?

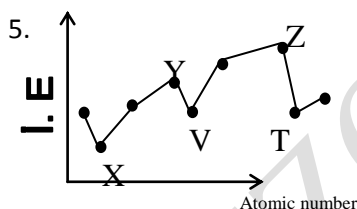
- A. $\text{B} > \text{C} > \text{N} > \text{O}$
- B. $\text{O} > \text{N} > \text{C} > \text{B}$
- C. $\text{N} > \text{O} > \text{C} > \text{B}$
- D. $\text{N} > \text{O} > \text{B} > \text{C}$
- E. $\text{O} > \text{C} > \text{B} > \text{N}$

3. In a period of the periodic table which type of element has the highest first ionization energy?

- A. Alkali Metals
- B. Halogens
- C. Earth Metals
- D. Noble gases
- E. Transition Metals

4. Which one of the following elements has the lowest first ionization energy?

- A. ${}_9\text{F}$ B. ${}_{11}\text{Na}$ C. ${}_{13}\text{Al}$ D. ${}_{19}\text{K}$ E. ${}_{20}\text{Ca}$



Which one is noble gas?

- A. X B. Y C. V D. T E. Z

6. What is the correct order of increasing first ionization energy of ${}_{15}\text{P}$, ${}_{16}\text{S}$ and ${}_{17}\text{Cl}$?

- A. P, S, Cl
- B. S, P, Cl
- C. Cl, P, S
- D. Cl, S, P
- E. S, Cl, P

7. In a period, from left to right, which one of the following occurs?

- A. metallic character increases
- B. atomic volume increases
- C. electronegativity decreases
- D. ionization energy decreases
- E. the number of valence electrons increases

8. According to the property of the elements Mendeleev built his periodic table of elements?

- A. Their atomic masses
- B. Their atomic numbers
- C. Their melting and boiling points
- D. Their physical states at room conditions
- E. Their densities

9. Write the atoms' similar shapes in order according to Dalton, Thomson, Rutherford and Bohr's atomic theories

- A. Billiard ball, cake with grapes, onion, peach
- B. Peach, cake with grapes, onion, billiard ball
- C. Billiard ball, cake with grapes, peach, onion
- D. Cake with grapes, onion, peach, billiard ball
- E. Onion, cake with grapes, peach, billiard ball

10. For the following elements found in the same horizontal row in the periodic table;

X: Earth alkaline metals

Y: Noble gas

Z: A heavy metal

T: A halogen

What is the order of these elements from left to right?

- A. Z, X, T, Y
- B. X, Z, Y, T
- C. X, Z, T, Y
- D. Z, Y, Z, T
- E. X, T, Z, Y

11. When a metal forms a compound;

- I. It gives an electron
- II. Its atomic radius decreases
- III. Its nuclear charge increases

Which of the above statements do(es) not occur?

- A. II only
- B. III only
- C. I and II
- D. I and III

E. II and III

12. When the ion X^{-1} is converted into X^{+1}

I. Ionic radius

II. Number of electrons

III. Number of protons

Which of the above decrease(s)?

A. I only

B. I and II

C. III only

D. II and III

E. I, II and III

13. Which one of the elements given below has the lowest first ionization energy?

A. X

B. Y

C. Z

D. T

E. K

X																	
															Z		
Y										K						T	

14. Which of the member of the following families in a period has the highest first ionization energy?

A. Alkaline metals

B. Alkaline earth metals

C. Noble gases

D. Halogens

E. Transition elements

15. Which one of the following families has the elements of which first ionization energies are the lowest?

A. Noble gases

B. Halogens

C. Earth metals

D. Alkaline metals

E. Alkaline earth metals

16. From top to bottom in a group in the periodic table;

I. Atomic radius

II. First ionization energy

III. Number of valence electrons

Which of the above is(are) increases?

A. I only

B. II only

C. I and II

D. II and III

E. I, II and III

17. Which of the following elements has the highest atomic radius?

A. ${}_{3}\text{Li}$

B. ${}_{11}\text{Na}$

C. ${}_{19}\text{K}$

D. ${}_{37}\text{Rb}$

E. ${}_{55}\text{Cs}$

18. Which of the following elements has the most metallic character?

A. Na

B. Mg

C. Ca

D. Fe

E. Cu