Periodic Classification of Elements

1. **Lother Meyer's curve is a plot of**

   1) Atomic numbers Vs atomic masses 2) Atomic volumes Vs atomic masses

   3) Atomic masses Vs densities 4) Atomic masses Vs ionization energies

2. **In Lother Meyer plot, the maxima of the curve occupied by**

   1) Noble gases 2) Halogens

   3) Alkali metals 4) Alkaline Earth metals

3. **Which of the following is a Dobereiner Triad?**

   1) Cl, Br, I 2) C, N, O 3) Na, K, Rb 4) All of these

4. **The maximum number of elements available in elemental form is**

   1) 102 2) 63 3) 34 4) 92

5. **"The physical and chemical properties of elements are the periodic function of their atomic weights" is**

   1) Mendeleev"s periodic law 2) Lother Meyer's periodic law

   3) Moseley's periodic law 4) Bohr's periodic law

6. **Which of the following is a triad of VIII group in Mendeleef table?**

   1) Fe, Co, Ni 2) Cl, Br, I 3) Li, Na, K 4) Sc, Ti, V

7. **In Mendeleev table the Number of short periods is**

   1) 7 2) 4 3) 3 4) 2

8. **The number of elements known when Mendeleev presented periodic table is**

   1) 50 2) 90 3) 63 4) 102

9. **Zero groups was introduced by**

   1) Lother Meyer 2) Mendeleev 3) Ramsay 4) Lockyer

10. **Mendeleev corrected the atomic weight of:**

    1) Be 2) In 3) Os 4) All of these

11. Anomalous pair in Mendeleev's table is

1) Na, Mg 2) Li, Al

3) Ar, K 4) Eka Boron, Eka Aluminium

12. Eka silicon is now called as

1) Gallium 2) Scandium 3) Germanium 4) Indium

13. The atomic weights of "Be" and "In" were corrected by Mendeleev using the formula

1) $\sqrt{v} = a(Z - b)$

2) $mvr = \frac{nh}{2\pi}$

3) Atomic weight=Equivalent weight x valency

4) Equivalent weight = Atomic weight x valency

14. The plot of $\sqrt{v}$ vs. Z is

1) Straight line 2) Exponential Curve

3) Hyperbolic 4) Curve With -ve slope

15. Modern periodic table is based on the atomic number of the elements. The experiment which proved the significance of the atomic number was

1) Bohr's atomic model 2) Moseley's work on X-ray spectra

3) Auf-bau principle 4) Lother Meyer plot of atomic volumes Vs atomic Masses.

16. The basis for the classification of elements in the Mendeleev periodic table is

1) Electronic configuration 2) Atomic weight

3) Atomic volume 4) Equivalent weight

17. The following are some statements about Mendeleev's periodic table

i) It is based on increasing order of atomic numbers.

ii) Mendeleev corrected the atomic weight of some elements like Be, In, U etc

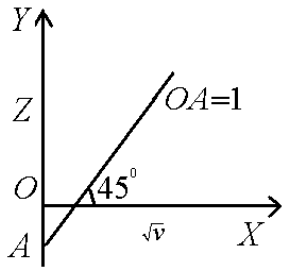
iii) (Ar; Ca), (Co; Cu), (Te; F_2) are three inverted pairs.

iv) It is based on increasing order of atomic weights.

1) Only (I) correct 2) (II) & (IV) correct

3) Only (III) correct 4) Only (IV) is correct

18. The frequency of the characteristic X ray of K_α line of metal target 'M' is $2500\,cm^{-1}$ and the graph between $\sqrt{v}$ Vs $'z'$ is as follows, and then atomic number of M is



1) 49 2) 50 3) 51 4) 25

19. The atomic number of Eka Aluminium is

1)31 2) 32 3) 21 4) 25

20. Which of the following metal can give X-rays of highest frequency?

1) Al 2) Ca 3) Fe 4) Zn

KEY

1)2	2) 3	3) 1	4) 4	5) 1	6) 1	7) 3	8) 3	9) 3	10) 4
11)	12) 3	13) 3	14) 1	15) 2	16) 2	17)2	18)3	19)1	20)4