

Question FBQ1 : ___ is a group 2 metal that is not counted as an alkaline earth metal since its oxide is not alkaline

Answer: Beryllium

Question FBQ2 : Group 2A elements are called alkaline earth metals because they react with oxygen to form _____

Answer: Oxides

Question FBQ3 : Alkaline earth metals have _____ valence electrons

Answer: Two

Question FBQ4 : Alkaline earth metals from ions with a _____ charge

Answer: +2

Question FBQ5 : The polarizing power of a cation is _____ proportional to its size

Answer: inversely

Question FBQ6 : Group 1 metals are known as _____

Answer: alkaline metals

Question FBQ7 : Group 2 elements are also known as _____ earth metals

Answer: alkaline

Question FBQ8 : John Newlands, an English chemist reported his law of _____

Answer: Octaves

Question FBQ9 : If elements are arranged sequentially in order of increasing _____, a periodic repetition, that is, periodicity in properties is observed

Answer: Atomic weight

Question FBQ10 : The modern periodic law states that the properties of elements are _____ functions of their atomic numbers

Answer: periodic

Question FBQ11 : The systematic name for the element with atomic number of 105 is called _____

Answer: Unnilpentium

Question FBQ13 : According to _____, no two electrons in the same atom can have the same value of n, l and m_i.

Answer: Exclusion principle

Question FBQ14 : According to _____ rule, every orbital in a subshell is singly occupied with one electron before any one orbital is doubly occupied, and all electrons in singly occupied orbitals have the same spin

Answer: Hunds

Question FBQ15 : Elements in the same period have same number of _____

Answer: Shell

Question FBQ16 : Elements in the same group have the same number of _____

Answer: Valence electrons

Question FBQ17 : The electronic configuration of an atom with atomic number 9 is given as _____

Answer: 1s2 2s2 2p5

Question FBQ18 : The ionic radii of metallic cations are ____ than the

atomic radii

Answer: Smaller

Question FBQ19 : The ionic radii of non-metallic anion are ____ than the atomic radii

Answer: Bigger

Question FBQ20 : Electron affinity _____ across the period

Answer: Increases

Question FBQ21 : Complete the following reaction
Na₂C₂ + 2H₂O → 2NaOH + ___

Answer: C2H2

Question FBQ22 : When Li₂CO₃ is decomposed under heat it gives ____ and CO₂

Answer: Li2O

Question FBQ23 : KO₂ is an example of a ____ oxide

Answer: Super

Question FBQ24 : When a metal is surrounded by solvent molecules, the phenomenon is called _____

Answer: Solvation

Question FBQ25 : Electrons associated with the solvent are known as _____ electrons

Answer: Solvated

Question FBQ26 : _____ is an alkaline earth metals useful in the formation of bones and teeth

Answer: Magnesium

Question FBQ27 : Complete the following reaction; Ca(OH)₂ + CO₂ → ____ + H₂O

Answer: CaCO3

Question FBQ28 : All group 2 elements except ___ form hydrides

Answer: Beryllium

Question FBQ29 : Complex formation is favoured by ____, highly charged cations with suitable empty orbitals of approximately the right energy with which the ligand orbitals can combine

Answer: Small

Question FBQ30 : In chlorophyll ____ is coordinated to four nitrogen atoms in the heterocyclic porphyrin ring system

Answer: Magnesium

Question FBQ31 : The hydrated ionic radii of alkali metal ions _____ down the group

Answer: Decreases

Question FBQ32 : The tendency to form complexes _____ with increasing atomic number in alkali earth metals

Answer: Decreases

Question FBQ33 : The density of alkali earth metals shrinks from beryllium to calcium, but ____ considerably thereafter up to radium

Answer: Increases

Question FBQ12 : The systematic name for the element with atomic number 102 is called _____

Answer: Unilbium

Question FBQ34 : _____ is a metallic cation that is isoelectronic to Al³⁺

Answer: Mg2+

Question FBQ35 : Potassium (₁₉K) has an effective Z value of ___

Answer: 2.20

Question MCQ1 : Alkaline earth metals form ions with a _____ charge

Answer: +2

Question MCQ2 : Which element is not an alkaline earth metals?

Answer: zirconium

Question MCQ3 : The classification of certain groups of three elements into TRIADS was done by?

Answer: Dobereiner

Question MCQ4 : Classification of elements according to increasing atomic weight on a line which spiraled around a cylinder from the bottom to top was done by ?

Answer: De chancourtois

Question MCQ5 : The Law of octaves was put forward by?

Answer: Newlands

Question MCQ6 : Arranging elements in increasing atomic weight leading to a periodicity in their properties was done by

Answer: Mendeleev

Question MCQ7 : Both elements of the 1st period contains valence electrons in

Answer: K shell

Question MCQ8 : In periodic table, helium is placed at

Answer: top right corner

Question MCQ9 : On the basis of electronic configuration group and period an element with atomic number of 5 is

Answer: 2 and IIIA

Question MCQ10 : Chemical properties depends upon

Answer: valence shell electronic configuration

Question MCQ11 : Nobel gases are present in

Answer: VIIIA group

Question MCQ12 : Energy required to remove an electron from the outermost shell is called

Answer: ionization energy

Question MCQ13 : As we go from top to bottom in a group shielding effect

Answer: Increases

Question MCQ14 : Group A elements are called

Answer: transition elements

Question MCQ15 : Period number of element indicates

Answer: value of valence shell

Question MCQ16 : Ability of atom to attract electrons towards itself is called

Answer: Electronegativity

Question MCQ17 : Average distance between nucleus and outer shell is called

Answer: atomic size

Question MCQ18 : Groups containing alkaline earth metals are

Answer: IIA

Question MCQ19 : Physical properties depends on the

Answer: size of atom

Question MCQ20 : Elements that lie in same column have

Answer: similar properties

Question MCQ21 : As we go from left to right across period, electron affinity

Answer: Increases

Question MCQ22 : Elements are arranged in order of

Answer: increasing atomic number

Question MCQ23 : Decrease in force of attraction between valence electrons and nucleus by innver electrons is called

Answer: shielding effect

Question MCQ24 : 14 elements after actinium is called

Answer: Actinides

Question MCQ25 : an element that has an atomic number of 15 with which of the following elements will it show similar chemical properties

Answer: N (7)

Question MCQ26 : The group number and period number respectively of an element with atomic number 8 is

Answer: 6, 2

Question MCQ27 : Identify the wrong sequence of elements in a group

Answer: Cu, Au, Ag

Question MCQ28 : An element with atomic number _____ will form a basic oxide

Answer: 11

Question MCQ29 : What principle/rule is violated in the configuration 1s² 2s³

Answer: Pauli's exclusion principle

Question MCQ30 : What principle/ rule is violated in the configuration 1s² 2s² 2px² 2py¹

Answer: Hund's rule

Question MCQ31 : What principle/ rule is violated in the electronic configuration 1s² 2px²

Answer: Aufbau's principle

Question MCQ32 : What type of bonding is found in Ammonia molecule

Answer: Covalent

Question MCQ33 : The polarizing power of a cation is _____ proportional to its size

Answer: Inversely

Question MCQ34 : Na₃AlF₆ is known as

Answer: Cryolite

Question MCQ35 : When a metal is surrounded by solvent molecules, the phenomenon is called

Answer: Solvation