

KHM HIGHER SECONDARY SCHOOL, VALAKKULAM

FIRST MID TERM EVALUATION-2023

CHEMISTRY

Time : 40 Minutes

STD-X

Max Marks:20

- Which one of the given subshell is not possible?
(5f, 3d, 2d, 4s) (1)
- In lanthanoides, the electron filling take place in _____ subshell?(1)
- Which one of the given electronic configuration of ${}_{24}\text{Cr}$ is correct?
(a) $[\text{Ar}] 3d^4 4s^2$ (b) $[\text{Ar}] 3d^5 4s^1$ (2)
- Write any two properties of 's' block element (2)
- MnO_2 is a compound of Manganese. Find out the oxidation state of Mn in MnO_2 . Write the subshell electronic configuration of this ion (Atomic number of Mn is 25) (3)
- The outer most electronic configuration of an atom is $2s^2 2p^6$. If so,
 - Write the complete subshell electronic configuration of this element.
 - Find the group number and period number of this element. (3)
- The subshell electronic configuration of some elements are given below.
 $\text{P}-1s^2 2s^2 2p^1$ $\text{Q}-1s^2 2s^2 2p^6 3s^1$
 $\text{R}-1s^2 2s^2 2p^6 3s^2 3p^5$ $\text{S}-1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$
 - Among these, which element belongs to the same period?
 - Which element belongs to first group?
 - Which one is the most electro negative element?
 - Which element has the biggest atom? (4)
- The atomic number of iron (Fe) is 26.
 - Write the complete subshell electronic configuration of Fe.
 - This element belongs to which block?
 - Write any two characteristic properties of their block in which this element belongs. (4)