SECTION V: INTEGER TYPE

808. The oxidation state of Fe in brown ring complex $[Fe(H_2O)_5NO]SO_4$ is

809. The most common oxidation state of Lanthanoids is

810. Total number of inner transition elements in the periodic table is

811. How many statements are incoorect from the following:

(i) In the testing of v group radical NH_4OH is added to convert NH_4HCO_3 to $(NH_4)_2CO_3$ so that Ba^{2+}, Sr^{2+} and Ca^{2+} precipitate completely.

(ii) In the fusion test for Mn^{2+} ions, purple mass obtained turns green on adding NaOH solution (fusion with $KClO_3$ + KOH).

(iii) The addition of zinc dust during the testing of S^{2-} by dil H_2SO_4 enhances the evolution of H_2S gas.

(iv) Nonluminous flame is called oxidising flame and luminous flame is called reducing flame.

(v) $Cr_2(SO_4)_3 + 3B_2O_3 \xrightarrow{\Delta} 2Cr(BO_2)_3$ (blue bead) + $3SO_3$

812. Consider the following complex : $[Co(NH_3)_5CO_3]ClO_4$
The coordinations number, oxidation number, number of d-electrons and number of unpaired d-electrons on the metal are respectively –

813. Benitoite is represented as BaTi $[Si_3O_n]$, the value of n iS?

814. A metal complex of co-ordination number six having three different types of ligands *a*, *b* and *c* of composition $Ma_2b_2c_2$ can exist in several geometrical isomeric forms; the total number of such isomers is

815. Effective atomic number of Fe in the complex $K_4[Fe(CN)_6]$ is

816. % of silver in 'german silver' is

817. From the following information

$A^- (g) \longrightarrow A^{+2} (g) + 3e^-$ $\quad \Delta H_1 = 1400$ kJ

$A (g) \longrightarrow A^{+2} (aq) + 2e^-$ $\quad \Delta H_2 = 700$ kJ

ΔH_{EG} $[A^+(g)] = -350$ kJ /mol

$(IE_1 + IE_2)$ for $A(g) = 950$ kJ/mol

Find IE_2 (kJ/mol) of A

818. f-Sub shell of which principle quantum no. is filled up progressively in actinoids?

819. How many of the following statements are correct

(i) All the lone pairs are not necessarily used in coordinate bonding.
(ii) Tetrahedral complex of coordination no. of '4' show geometrical isomerism
(iii) A polydentate ligands have flexidentate character.
(iv) Geometrical isomerism is not noticed in complex coordination no. 2 and 3 .
(v) EDTA has six lone pairs but it will be less than 6 lone pair s can be used in some coordinate complexes.
(vi) Perfect complexes are those in which complex ion is fairly stable.
(vii) It can be considered as undissociated and doesn't give the individual tests for cations and anions.
(viii) For the complex $K_4[Fe(CN)_6]$ it will give $4K^+$ and $[Fe(CN)_6]^{4-}$ but will not give individual test for Fe^{2+} & $6CN^-$.
(ix) Square planar complexes of coordination no. of '4' shows geometrical isomerism
(x) Octahedral complexes of coordination no. of '6' showing geometrical isomerism
(xi) It is either not dissociated or feebly dissociated in solution state.
(xii) Ambidentate ligands are those in which only one donor atom is attached to metal atom

820. What is the oxidation state of lead in litharge?

821. When Fe(s) is dissolved in aqueous hydrochloric acid in a closed vessel, the work done is?

822. Theoritically the No. of geometrical isomers expected for octahedral complex [Mabcdef] is :

823. The magnetic moment of a transition metal ion is found to be 3.87 BM. The number of unpaired electrons present in the ion is

824. Inorganic graphite is B_XN_Y, the value of X+Y is?

825. An ornament of gold has 75% of gold, then it is of how many carat?

826. In an alkaline medium, the equivalent mass of $KMnO_4$ is $\left(\frac{M}{x}\right)$. Then x is?

827. The number of unpaired electron in the complex ion $[CoF_6]^{3-}$ is

828. The possible number of optical isomers in $[Co(en)_2Cl_2]^+$ are

829. The number of milli-moles of acidified $KMnO_4$ required to convert one mole of sulphite ion into sulphate ion is

830. Colemanite has the formula : $Ca_2B_6O_{11}\cdot xH_2O$. What is x?

831. The atomic number of an element is 22. The highest oxidation state exhibited by it in its compounds is]

832. Out of the following the number of process(es) which uses a catalyst is/are?
(I) Contact process
(II) Thermite process
(III) Ostwald's process
(IV) Haber's process

833. The mononuclear complex salt having the molecular composition $[Co(en)_2 (SCN) (NO_2)]Br$ can exist in a number of isomeric forms. The total number of possible isomer of all type is

834. Number of equivalent Cr —O bonds in the dichromate dianion are?

Answer Key

Qs.	Ans.
808	1
809	6
810	28
811	2
812	6360
813	9
814	5
815	36
816	0
817	650
818	5
819	10
820	2
821	0
822	15
823	3
824	6
825	18
826	3
827	4
828	3
829	400
830	5
831	4
832	3
833	24
834	6