Date Planned : __ / __ / __	Daily Tutorial Sheet-12	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-3	Exact Duration :_____

Matching Column Type

141. Match the transformations in Column I with appropriate option in Column II.

Column I		Column II	
(A)	$O_2^- \longrightarrow O_2 + O_2^{2-}$	**(p)**	Redox reaction
(B)	$ClO_3^- \longrightarrow$	**(q)**	One of the products has trigonal planar structure
(C)	$MnO_4^- + NO_2^- + H^+ \longrightarrow$	**(r)**	Tetrahedral ion
(D)	$NO_3^- + H_2SO_4 + Fe^{2+} \longrightarrow$	**(s)**	Disproportionation

142. Among the following, the number of elements showing only one non-zero oxidation state is O, Cl, F, N, P, Sn, Tℓ, Na, Ti, Ca, Zn _____.

143. What is the highest oxidation number among given compounds ?

CrO_5, OsO_4, K_3CrO_4, $[Ir(O)_4]^-$, $[Ir(O)_4]^+$

144. What is the percentage of copper in cupric salt which gave the following results? 6g of the salt were dissolved in water and made up to 250 mL. 25 mL of this solution after the addition of an excess of KI required 22.3 mL of $\frac{N}{10}Na_2S_2O_3$ solution to react with the liberated Iodine.

145. 200 g of marble chips are dropped into one kilogram of solution of hydrochloric acid containing one-tenth of its weight of the pure acid. How much of chips will remain undissolved? What is the weight of anhydrous calcium chloride and carbon dioxide gas that could be obtained from it ?

146. 50 g of caustic soda will be completely converted into sodium chlorate and sodium chloride by the action of chlorine. What weight of manganese dioxide and what volume of hydrochloric acid (containing 300 g per litre) were used for the production of the necessary amount of chlorine ?