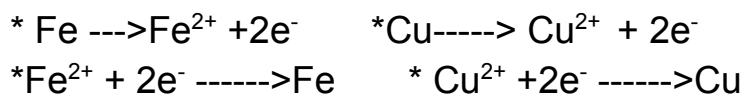# KHM HIGHER SECONDARY SCHOOL,VALAKKULAM
SECOND TERMINAL EVALUATION - 2021
CHEMISTRY
Max.Marks:30   STD: X   Time: 01 hr

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1. The molar volume of a gas at STP is _____   (1)

2. The formula of bauxite, the ore of aluminium is ____   (1)

3. Name the gas produced when magnesium reacts with water ?   (1)

4. An inflated balloon burst when kept in sunlight. Name the gas law related to this ?   (1)

5. Name the electrolyte used when copper is coated in iron bangle ? (1)

6. Complete the table using the below given equations.

* Fe --->Fe^{2+} +$2e^-$ *Cu-----> Cu^{2+} + $2e^-$

*Fe^{2+} + $2e^-$ ------>Fe   * Cu^{2+} +$2e^-$ ------>Cu

Chemical reaction.	Oxidation.	Reduction
Zn + $CuSO_4$	Zn----->Zn^{2+} +$2e^-$	----------------
Fe +$AgNO_3$	----------------	Ag^+ + $1e^-$-->Ag

7. Find the number of molecules present in 88g of CO_2 ?
(Molecular mass of CO_2 = 44).   (2)

8. Complete the table.   (2)

Ore.	Method of concentration.
Magnetite.	---------------
----------------	Leaching

9. When molten sodium chloride is electrolysed,
   a) Name the product formed at anode ?
   b) Write the reaction that takes place at anode ?　　　(2)
10. Write the difference between calcination and roasting ?　　(2)
11. Atomic number of Mn is 25.
   a) Write the complete subshell electronic configuration ?
   b) Find its group and period ?
   c) Write the subshell electronic configuration of Mn^{3+} ion ? (3)
12. Chemical reactions taking place at blast furnace is given below. Write the answers of the following

$CaCO_3 \text{-----}> CaO + CO_2$

$C + O_2 \text{------}> CO_2$

$CO_2 + C \text{-----}> 2CO$

$CaO + SiO_2 \text{------}> CaSiO_3$

$Fe_2O_3 + 3CO \text{-------}> 2Fe + 3CO_2$

a) Which compound is used as reducing agent ?
b) Which one is the flux ?
c) Select the equation for the formation of slag ?　　　　　　(3)
13. Construct a galvanic cell combining Cu and Ag. Write the reaction that takes place at cathode ?　　　　　　　　　　　(3)
14. In 112L ammonia at STP, find the
   a) Number of moles
   b) Mass
   c) Number of molecules
  {GMM of NH_3= 17g}.　　　　　　　　　　　　　　(3)
15. The subshell electronic configuration of Copper having atomic number 29 written by a student is
$1s^2\ 2s^2 2p^6\ 3s^2\ 3p^6\ 3d^9\ 4s^2$
 a) Correct it if it is wrong.
 b) Write its block
 c) Write any two properties of this block elements.　　　　(3)