Paper: ___Chemistry_____ Total Marks: _____40_____

Month Test: ____July_____ Obt. Marks: _____

Theme/Unit: _____1____ Grand Total: _____

Objective / Subjective: ID: _____ Time: _____

Name: _____ class: _____11th_____ Section: _____

Q NO. 1: Choose the right answer. /10

1) The mass of one mole of electrons is:
   (a) 1.008mg (b) 0.55mg (c) 0.184mg (d) 1.673mg
2) The largest number of molecules are present in:
   (a) 3.6g of water (b) 4.8g of C_2H_5OH (c) 2.8g of CO (d) 5.4g of N_2O_5
3) Formula of carbocation is:
   (a) CH_2^+ (b) CH_3^+ (c) CH_4^+ (d) CH_4^-
4) The volume occupied by 1.4g of N_2 at S.T.P is:
   (a) 2.24 dm^3 (b) 22.4 dm^3 (c) 1.12 dm^3 (d) 112 dm^3
5) Ascorbic acid is chemical name of:
   (a) Vitamin B (b) Vitamin C (c) Vitamin D (d) Vitamin E
6) Diameter of atom is:
   (a) 0.2 nm (b) 2.0 nm (c) 0.22 nm (d) 2.02 nm
7) (17) The molar volume of CO_2 is maximum at:
   (a) S.T.P (b) 127ºC and 1atm (c) 0ºC and 2 atm (d) 273ºC and 2atm
8) Tin has isotopes:
   (a) 7 (b) 9 (c) 5 (d) 11
9) Yield is usually calculated to check the _____ of given reaction:
   (a) Concentration b) Error c) Efficiency d) Rate
10) An isotope was first discovered by:
   (a) Berzelius b) Crooke c) Chadwick d) Soddy

Q No. 2: Short Questions. /18

1) Define relative atomic mass?
2) Write steps to calculate empirical formula.
3) Calculate the mass of 10^{-3} mole of $MgSO_4$.
4) Write steps to identify a limiting reactant.
5) Why actual yield is always less then theoretical yield?
6) 180g of glucose and 342g of sucrose have same number of molecules but different number of atoms present in them. Why?
7) Calculate the percentage of nitrogen in NH_4NO_3.
8) No individual neon atom in the sample of element has mass of 20.18 amu. Justify it?
9) Give conditions required to perform stoichiometric calculations?

Q No. 3: Give detailed answers. /12

1) How can we determine the relative atomic mass by mass spectrometry? /4
2) A well-known ideal gas is enclosed in a container having volume 500 cm^3 at S.T.P. Its mass comes out to be 0.72g. What is the molar mass of this gas? /4
3) Calculate the number of grams of Al_2S_3 which can be prepared by the reaction of 20g of Al and 30g of S. How much the non-limiting reactant is in excess? /4