CHEMISTRY-11	Chapter#01 (Complete-SMART) Test-1		
	Name:	Class:	ID:
Date: / /	**Marks Total: 30**	**Marks Obtained:**	
Time Allowed: 50 Min.			

Maximum Marks: 06 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

1. **Many elements have fractional atomic masses. This is because:**
   (a) The mass of the atom is itself fractional.
   (b) Atomic masses are average masses of isobars.
   (c) Atomic masses are average masses of isotopes.
   (d) Atomic masses are average masses of isotopes proportional to their relative abundance.
2. **27 g of Al will react completely with how much mass of O_2 to produce Al_2O_3?**
   (a) 8 g of Oxygen (b) 16 g of Oxygen (c) 32 g of Oxygen (d) 24 g of Oxygen
3. **The number of carbon atoms in 22.0 g of CO_2 is:**
   (a) 3.01×10^{23} (b) 6.02×10^{23} (c) 3.01×10^{22} (d) 6.02×10^{22}
4. **The mass of one atom of hydrogen is:**
   (a) 1.008 g (b) 1.67×10^{-22} g (c) 1.008 amu (d) Both 'b' & 'c'
5. **Which gas will occupy greater volume at STP?**
   (a) 10 g H_2 (b) 50 g CH_4 (c) 100 g O_2 (d) 200 g of SO_2
6. **If 8 g of H_2 is allowed to react with 32 g of O_2, the limiting reactant will be:**
   (a) H_2 (b) O_2 (c) Both (d) None

Maximum Marks: 24 **(SUBJECTIVE TYPE)** Time Allowed: 40 Min.

SECTION-I

Q.2: GIVE BRIEF ANSWERS TO THE FOLLOWING QUESTIONS: (16)

i. What are mono-isotopic elements?
ii. Mg atom is twice heavier as an atom of carbon. Explain.
iii. 23 g of Na and 238 g of Uranium have equal number of atoms in them. Justify it.
i. Calculate the number of O atoms in 10.037 g of $CuSO_4.5H_2O$.
ii. Define Avogadro's number. Give an equation to relate the Avogadro's number and the mass of an element.
iii. Define Stoichiometry. Give two assumptions for stoichiometric calculations.
iv. What are the steps to identify a limiting reactant?
v. How can the efficiency of chemical reaction be calculated? Or What is the percentage yield?

SECTION-II

NOTE: Attempt All Questions: (08)

Q.3: A sample of neon is found to consist of $^{20}_{10}Ne$, $^{21}_{10}Ne$, and $^{22}_{10}Ne$ in the percentages of 90.92%, 0.26%, 8.82% respectively. Calculate the fractional atomic mass of Neon.

Q.4: Calculate the number of grams of Al_2S_3 which can be prepared by the reaction of 20 g of Al and 30 g of sulphur. How much the non-limiting reactant is in excess?