Choose the correct answer

1	The SI units are: A) "kg" for mass, "atm" for pressure. B) "Pa" for pressure, "K" for temperature. C) "°C" for temperature, "L" for volume. D) "s" for time, "mmHg" for pressure.
2	The number of atoms in 40.5 g of aluminum(Al) is: A) 2.5×10^{24} B) 1.8×10^{21} C) 9.0×10^{23} D) 6.6×10^{26}
3	The weight percentage of copper (Cu) in the compound $CuFeS_2$ is: A) 25.48% B) 28.75% C) 34.62% D) 39.56%
4	5.0 g (H_2) react with 5.0 g (CO) to give 5.5 g (CH_3OH), $2H_2 + CO \rightarrow CH_3OH$ what is the percent yield of the product ? A) 11% B) 24% C) 79% D) 96%
5	The concentration, in(mol/L), of a 100 g of $NaNO_3$ in 1500 mL solution is: A) 0.78 B) 0.078 C) 0.087 D) 0.87
6	If the concentration of $CuSO_4$ solution is 52.7% by mass, the weight of solution that contains 75.4 g of $CuSO_4$ is: A) 341 B) 314 C) 143 D) 431
7	The molecular formula of a compound contains 46.16% carbon, 5.17% hydrogen and 48.67% fluorine with the molar mass 156.12 g/mol? A) $C_3H_4F_2$ B) $C_5H_{10}F_5$ C) $C_6H_8F_4$ D) $C_6H_6F_3$
8	When 1.00 mol of H_2 reacts with 1.00 mol of O_2: $2H_2 + O_2 \rightarrow 2H_2O$ the final gas mixture will contain: A) H_2, H_2O, and O_2 B) only H_2 and H_2O C) only O_2 and H_2O D) only H_2 and O_2

9	Mass of NaN_3 needed to fill a 44.8 L car air bag with $N_{2(g)}$ at standard temperature and pressure (STP) is: $2NaN_3(s) \rightarrow 2Na(s) + 3N_2(g)$ A) 56 g B) 87 g C) 130 g D) 1.3 g
10	A sample of CO(g) gas was collected in a 2.0 L flask over water at 28°C and 810 mmHg, the number of moles of CO in the flask is: if P_{H_2O} = 28.3 mmHg at this temperature. A) 0.380 B) 0.038 C) 0.308 D) 0.083
11	A sample of N_2 gas has a volume of 32.4 L at 20°C and 740 torr. If the sample is heated to 120°C and its pressure is reduced to 620 torr. The final volume of N_2, (in L), becomes: A) 70.3 B) 65.8 C) 60.7 D) 51.9
12	The constant "b" in "van der Waals" equation is related to: A) The average speed of the gas molecules. B) The volume of the gas molecules. C) The attractive forces between the gas molecules. D) The average kinetic energy of the gas molecules.
13	What is the molar mass (in g/mol) of a gas if its density(d) is 1.57 g/L at 298 K and 1.2 atm? A) 71 B) 44 C) 32 D) 28
14	What is the root-mean-square speed (in m/s) of neon (Ne) at 300 K? A) 450 B) 498 C) 685 D) 609
15	Which of the following gases effuses about two times faster than $SO_2(g)$? A) CH_4 B) O_2 C) CO_2 D) CO