# MDCAT Chemistry Chapter 2 Atomic Structure Online Test

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | 5604 cm3 of H2 gas at STP contains atoms of hydrogen | A. 6.02×10 (23)<br>B. 2.6x10(22)<br>C. 3.01x10(23)<br>D. 1. 50x 10(23) |
| 2 | Mg(s) + 2HCl(aq). ---------- MgCl2(aq)+ H2(g)<br>Given that; Mg=21g and HCl=21g, the excess reactant is | A. Mg<br>B. HCl<br>C. Both are in stoichiometric amounts<br>D. None of these |
| 3 | One mole of SO2 contains | A. 6.022 x 10(23) atoms of oxygen<br>B. 6.022x 10 ê23 atoms of sulfur<br>C. 18.1x 10 (23) molecules of SO2<br>D. 4 g molecule of SO2 |
| 4 | How many electrons have to be removed to ionize 1.0 x 10(-6) moles of Ne atoms to Ne+ ions in a neon advertising tube: | A. 6.02x10ê23/1.0x10ê-6<br>B. 1.0x 10ê-6 x 6.02x 10ê23<br>C. 1.0x10ê-6 x 6.02×10ê23/20.2<br>D. 1.0x10ê-6 x 6.02x10ê23/9.65x10ê-1 |
| 5 | 1 gram formula refers to | A. Amount in grams equivalent to 1 mole of a atom<br>B. Amount in grams equivalent to 1 mole of a covalent compound<br>C. Amount in grams equivalent to 1 mole of a ionic compound<br>D. Amount in grams equivalent to 1 mole of an ion |
| 6 | Number of H+ ions when 0.1 mole of sulfuric acid is completely ionized in water | A. 4x6.022x10ê23<br>B. 1×6.022x10ê23<br>C. 2x6.022 x10ê23<br>D. 2x6.022x10ê22 |
| 7 | 1 gram molecule refers to amount in grams | A. Equivalent to 1 mole of an atom<br>B. Equivalent to 1 mole of a molecule<br>C. Equivalent to 1 mole of an ionic species<br>D. Of an ionic compound |
| 8 | The stoichiometric calculations for a chemical reaction results in | A. Actual yield<br>B. Percentage yield<br>C. Theoretical yield<br>D. Selectivity |
| 9 | Mass spectrometry is used to determine the | A. Number of isotopes of an element<br>B. Relative abundance of isotopes<br>C. Relative isotopic masses<br>D. All of these |