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| Question #1  **What is the name of the compound SrO?** |  | Question #2  **What is the molar mass for the hydrocarbon  C24H37O6** |
| Question #3  **What happens to the electrons during a metallic bond?** |  | Question #4  **What type of bond forms between two nonmetals share electrons?** |
| Question #5 **Balance the following reaction and identify the mole ratio between the two reactants.**  **CH4 + O2 →** |  | Question #6  **What are the dominant intermolecular forces present in water?** |
| Question #7  **Rank the bulk forces in order of strength from weakest to strongest.** |  | Question #8  **What is the formula for copper (IV) sulfate?** |
| Question #9  **What kind of a reaction is this?**  **Na + CaSO4 →** |  | Question #10 **Which molecule has covalent bonding and does not require a double or triple bond? CO2, CO, N2, CI2** |
| Question #11  **Draw the Lewis dot structure for BrO3-** |  | Question #12  **What is the VSEPR geometry for carbon tetrachloride?** |
| Question #13  **What is the molar mass of (NH4)2S?** |  | Question #14  **What is the VSEPR geometry for ammonia?** |
| Question #15  **Draw the Lewis Dot structure for nitrogen gas.** |  | Question #16  **What kind of a reaction requires O2 as a reactant?** |
| Question #17 **Predict the products and balance the following reaction:**  **aluminum phosphate plus rubidium nitrite** |  | Question #18  **In a 'polar' bond, the elements involved are sharing the electron(s)...** |
| Question #19 **If you have 10 mol of Zn, how many mols of ZnO can be produced?**  **3Zn+Al2O3→3ZnO+2Al** |  | Question #20  **If you have 25g of Zn, how many g of ZnO can be produced?**  **3Zn+Al2O3→3ZnO+2Al** |
| Question #21  **Name the seven diatomic elements.** |  | Question #22  **What is the molar mass of Al(OH)3?** |
| Question #23  **If you have 38L of O2 at STP, how many L of H2O can you make, assuming your water is gaseous.**  **2H2 + O2→ 2H2O** |  | Question #24  **Draw the Lewis dot structure for AlH3** |
| Question #25  **What is the mole ratio of TNT to carbon monoxide ?  C7H5N3O6 → CO + C + H2O + N2** |  | Question #26  **What is the formula of sodium carbonate?** |
| Question #27  **What is the molar mass of sodium carbonate?** |  | Question #28  **What is the molar mass of iron (III) sulfate** |
| Question #29  **How many moles of iron (III) sulfate in 44.5g iron (III) sulfate? The molar mass is 400.1 g/mol.** |  | Question #30 **How many grams potassium chloride are in 14.6 moles potassium chloride?  1 mole = 74.5 g** |
| Question #31  **How many grams of iron (III) carbonate are found in 5.46 moles iron (III) carbonate?** |  | Question #32  **Aqueous copper(II) bromide reacts with aqueous aluminum chloride. What type of reaction is this?** |
| Question #33  **Aqueous copper(II) bromide reacts with aqueous aluminum chloride. Balance this equation and predict the products.** |  | Question #34  **How many moles of sodium carbonate are in 10.9 g sodium carbonate?  Molar mass is 106 g** |
| Question #35  **What is the mole ratio of iron(III) sulfate to sodium sulfate? Fe2(SO4)3 + 3Na2CO3 →Fe2(CO3)3 + 3Na2SO4** |  | Question #36 **If 10 moles iron (III) sulfate reacts, how many moles sodium sulfate will form? Fe2(SO4)3 + 3Na2CO3 →Fe2(CO3)3 + 3Na2SO4** |
| Question #37  **If 15 g oxygen is reacted with hydrogen, then how many moles water will be produced?** |  | Question #38  **What are three of the four indications that a chemical reaction has occurred?** |
| Question #39  **If 46 g sodium metal reacts completely, how many moles chlorine gas will be required to make sodium chloride?** |  | Question #40  **If 100 g sodium chloride reacts completely with barium, then how many grams sodium metal will be obtained?  2NaCl + Ba → BaCl2 + 2Na** |
| Question #41  **How many liters fluorine gas in 0.87 moles of fluorine gas at STP?** |  | Question #42  **How many grams of oxygen gas are in 0.69L of oxygen gas at STP?** |
| Question #43  **2H2S +3O2 → 2SO2+ 2H2O How many moles of H2S are required to form 8.20 moles of SO2?** |  | Question #44 **2NaClO3→2NaCl+3O2  How many molecules of oxygen are produced when 80.0 grams of sodium chloride are produced?** |
| Question #45 **Na2S2O3(aq) + 4Cl2(g) + 5H2O(aq) →2NaHSO4(aq)+8HCl(aq) How many moles of H2O react if 5.24 x 1019molecules of HCl are formed?** |  | Question #46  **Draw the Lewis structure and identify the VSEPR geometry for BCl3.** |
| Question #47  **Which electrons are involved in bonding?** |  | Question #48  **How many electrons does Antimony need to gain or lose to have a full valence shell?** |
| Question #49  **How many valence electrons are available in NF3?** |  | Question #50  **Identify if the following are ionic or covalent:**  **LiF, CH4, CH3OH, NH3, MgO** |
| Question #51  **List the first ten prefixes used to name covalent molecules** |  | Question #52  **Name C2H6** |
| Question #53  **Name Ag2O** |  | Question #54  **Name Cu(NO2)3** |
| Question #55  **Name SO6** |  | Question #56  **Draw the Lewis structure for BaS** |
| Question #57  **Draw the Lewis Structure for CH3OH** |  | Question #58  **How many lone pairs does CH4 have?** |
| Question #59  **How many lone pairs does NH3 have?** |  | Question #60  **Is SF2 polar or  non polar?** |
| Question #61  **Is SiO2 polar or  non polar?** |  | Question #62  **Which is more polar, CHCl3 or CHBr3** |
| Question #63  **Identify the main IMF present in F2** |  | Question #64  **Identify the main IMF present in HCl** |
| Question #65  **Identify the main IMF present in C (graphite)** |  | Question #66  **What is the sum of the coefficients when balanced:**  **\_\_\_Ag + \_\_\_S** 🡪 **Ag2S** |