

**McConochie Generic Battery (McGB) - Chemistry**

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**Name: (last)** \_\_\_\_\_, **(first)** \_\_\_\_\_

**Age:** \_\_\_\_\_ **Gender:** Male or Female (circle one)

For each of the items below, circle the number of the one correct answer.

- 1 2 3 4      1. Which of the following is an element?  
(1) Air      (2) Gold      (3) Plastic      (4) Water
- 1 2 3 4      2. Which of the following is a compound?  
(1) Silver      (2) Uranium      (3) Water      (4) Chlorine
- 1 2 3 4      3. What is the smallest unit of an element that can be combined with other elements?  
(1) Compounds      (2) Molecules      (3) Isotopes      (4) Atoms
- 1 2 3 4      4. What is the periodic table?  
(1) A two-dimensional chart of elements.  
(2) A two-dimensional chart of compounds.  
(3) A four-legged diagram for explaining how molecules are formed.  
(4) A framework for explaining the periods or half-lives of chemical reactions.
- 1 2 3 4      5. Which is the law of conservation of mass?  
(1) When two substances react chemically, a new substance is formed.  
(2) Mass is conserved except when heat is introduced to start a chemical reaction.  
(3) Chemical reactions always contain the same number of atoms on both sides of the equation.  
(4) Atoms are neither created nor destroyed during a chemical reaction.
- 1 2 3 4      6. What is the definition of "potential energy"?  
(1) Force times distance.  
(2) The ability to do work or transfer heat.  
(3) The energy an object possesses by virtue of its motion.  
(4) The energy an object possesses as a result of its position or chemical composition.
- 1 2 3 4      7. Which is not an alkali metal?  
(1) Iron      (2) Lithium      (3) Sodium      (4) Potassium

**Please turn the page and continue...**

- 1 2 3 4      8. Which is true of the periodic table?  
(1) It was originally conceived by Mendeleev.  
(2) It has sections called periods, eons and epocs.  
(3) It contains 356 elements.  
(4) It contains positions for carbon compounds.
- 1 2 3 4      9. Which is not true of radiant energy?  
(1) It travels at the "speed of light".  
(2) It can be defined in terms of wave length.  
(3) It's smallest quantity is a neutron.  
(4) It creates both a spectrum and line spectra.
- 1 2 3 4      10. Which are not part of an atom?  
(1) Molecules (2) Neutrons (3) Protons (4) Electrons
- 1 2 3 4      11. How many electrons does a normal Hydrogen atom have?  
(1) None. (2) 1 (3) 4 (4) 8
- 1 2 3 4      12. What particles account for the bonding of atoms together to form molecules?  
(1) protons (2) gluons (3) electrons (4) quarks
- 1 2 3 4      13. Diamonds are made up of what type of atoms?  
(1) Silicon (2) Carbon (3) Quartz (4) Carats
- 1 2 3 4      14. What is used to measure the pressure of a gas?  
(1) Gasometer (2) Spectrometer  
(3) Micrometer (4) Barometer
- 1 2 3 4      15. What is the term that describes the transformation of a substance directly from solid to gas form?  
(1) Sublimation (2) Ionization  
(3) Oxidation (4) Evaporation
- 1 2 3 4      16. What is the process by which a gas transforms to a liquid?  
(1) Freezing (2) Deposition  
(3) Condensation (4) Vaporization
- 1 2 3 4      17. Which term least pertains to the properties of solutions?  
(1) Electrolytes (2) Osmotic pressure  
(3) Dialysis (4) Kinetic energy
- 1 2 3 4      18. What is not true of colloids?  
(1) They contain atoms.  
(2) They are smaller than normal molecules.  
(3) They remain suspended in dispersing media.  
(4) They are more like liquids than solids.

**Please turn the page and continue...**

- 1 2 3 4      19. What, in addition to sulfur and hydrogen, is needed to form sulfuric acid?  
(1) Chlorine    (2) Oxygen    (3) Nitrogen    (4) Carbon
- 1 2 3 4      20. Which is not considered a pollutant of normal air?  
(1) Carbon monoxide (CO)  
(2) Sulfur dioxide (SO<sub>2</sub>)  
(3) Nitric Oxide (NO)  
(4) Carbon dioxide (CO<sub>2</sub>)
- 1 2 3 4      21. What does an enzyme do?  
(1) Catalyzes specific biochemical reactions.  
(2) Catalyzes specific petrochemical reactions.  
(3) Catalyzes all petrochemical reactions.  
(4) Catalyzes vitamins into minerals.
- 1 2 3 4      22. What component correctly completes this reaction? CO<sub>2</sub> + H<sub>2</sub> -> CO +  
(1) CO<sub>4</sub>          (2) H<sub>2</sub>CO<sub>2</sub>    (3) H<sub>2</sub>O          (4) 2CO<sub>2</sub>
- 1 2 3 4      23. What is the chemical formula for common table salt?  
(1) NaCl          (2) HCl          (3) H<sub>2</sub>O<sub>4</sub>        (4) NH<sub>3</sub>
- 1 2 3 4      24. To best neutralize an acid, one needs a:  
(1) hydrocarbon    (2) base          (3) oxyacid      (4) peptide
- 1 2 3 4      25. In which area of science was Michael Faraday not prominent?  
(1) Electro-chemistry  
(2) Physics  
(3) Mechanical engineering  
(4) Theory of electricity
- 1 2 3 4      26. What is the chemical symbol for lead?  
(1) Pb            (2) Ld            (3) Hd            (4) Ad
- 1 2 3 4      27. Which chemical is most likely to contribute to an explosion?  
(1) O<sub>2</sub>            (2) NaCl          (3) SO<sub>4</sub>          (4) CO<sub>2</sub>
- 1 2 3 4      28. What is the chemical formula for common rust?  
(1) RuO<sub>2</sub>        (2) IrO<sub>3</sub>        (3) Fe<sub>2</sub>O<sub>3</sub>        (4) Ru<sub>2</sub>St<sub>4</sub>

**Now, please check to make sure you have answered every item with only one number clearly circled (don't put circles between numbers).**

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