|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. All polymers form rigid solids at standard temperature and pressure.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Conducting Polymers |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. The nucleus of an atom is comprised of protons and electrons.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 3. Cations are particles with fewer electrons than protons.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Ions |
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| 4. A horizontal row of elements on the periodic table is referred to as a family.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 5. The systematic name of V2O5 is vanadium pentoxide.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 6. The systematic name of AlCl3 is aluminum chloride.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. The chemical formula for nitrite is NO3−.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. Elements in a periodic family tend to combine with the same number of hydrogen atoms.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. Free radicals, such as Cl∙, tend to be very reactive.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Polyethylene |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. Silicon tetrachloride plays an important role in the production of semiconductors.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Inorganic and Organic Chemistry |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. CH3−O−CH3 is an example of an alcohol.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Inorganic and Organic Chemistry |
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| 12. Chlorine forms four oxyanions.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 13. The average mass of an atom is determined by:

|  |  |  |
| --- | --- | --- |
|   | a.  | adding the number of protons and electrons and dividing it by the number of neutrons. |
|   | b.  | averaging the masses of each isotope. |
|   | c.  | calculating the weighted average of all stable isotopic masses. |
|   | d.  | adding the number of protons and neutrons and dividing it by the number of electrons. |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 14. Ions of opposite charges attract one another. This attraction is governed by \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | Graham's law |
|   | b.  | Henry's law |
|   | c.  | Kirchoff's law |
|   | d.  | Coulomb's law |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Ions |
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| 15. In the modern periodic table, the densest element is found in \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | period 2 |
|   | b.  | period 4 |
|   | c.  | period 6 |
|   | d.  | period 8 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 16. Group II elements (Be, Mg, Ca, Sr, and Ba) are commonly referred to as \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | alkali metals |
|   | b.  | alkaline earth metals |
|   | c.  | halogen metals |
|   | d.  | lanthanide metals |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. The vertical columns in the periodic table are called \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | groups |
|   | b.  | periods |
|   | c.  | classes |
|   | d.  | sections |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. In the context of the modern periodic table, \_\_\_\_\_ are examples of transition metals.

|  |  |  |
| --- | --- | --- |
|   | a.  | Fe and Zn |
|   | b.  | Sb and I |
|   | c.  | Pm and Gd |
|   | d.  | Al and Ga |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. \_\_\_\_\_ are examples of actinides.

|  |  |  |
| --- | --- | --- |
|   | a.  | Ti and Cr |
|   | b.  | U and Np |
|   | c.  | Sm and Er |
|   | d.  | Kr and Xe |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 20. Which of the following pairs of elements can be classified as noble gases?

|  |  |  |
| --- | --- | --- |
|   | a.  | H and He |
|   | b.  | Na and K |
|   | c.  | Kr and Ar |
|   | d.  | N and O |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 21. Uranium, plutonium, and neptunium are classified as \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | alkali metals |
|   | b.  | alkaline earth metals |
|   | c.  | lanthanides |
|   | d.  | actinides |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 22. Alkali metal cations carry a charge of \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | 1+ |
|   | b.  | 2+ |
|   | c.  | 2− |
|   | d.  | 1− |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 23. CaCl2 is an example of a(n) \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | covalent compound |
|   | b.  | formula unit |
|   | c.  | molecular compound |
|   | d.  | organic acid |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Compounds and Chemical Bonds |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. The molecular formula for lead nitrate is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | PbN3 |
|   | b.  | Pb(NO2)3 |
|   | c.  | Pb(NO3)2 |
|   | d.  | PNO3 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. The molecular formula for ammonium chloride is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | NH3Cl |
|   | b.  | NH2Cl2 |
|   | c.  | NH4Cl |
|   | d.  | NH2Cl3 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 26. The molecular formula for strontium chloride is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | SrCl2 |
|   | b.  | StCl2 |
|   | c.  | SrClO2 |
|   | d.  | SrCl |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 27. The molecular formula for iron(II) bromide is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | FeBr3 |
|   | b.  | FeBr2 |
|   | c.  | I2Br2 |
|   | d.  | IBr3 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 28. The molecular formula for dinitrogen pentoxide is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | N2O5 |
|   | b.  | (NO5)2 |
|   | c.  | 2NO5 |
|   | d.  | N2P5O |

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| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 29. The molecular formula for rubidium chloride is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | RuCl2 |
|   | b.  | RbCl2 |
|   | c.  | RuCl |
|   | d.  | RbCl |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 30. The molecular formula for calcium phosphate is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | Ca3P2 |
|   | b.  | CaPO3 |
|   | c.  | Ca3(PO4)2 |
|   | d.  | Ca2(PO4)3 |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 31. The molecular formula for tin(IV) oxide is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | TiO2 |
|   | b.  | SnO2 |
|   | c.  | SnO4 |
|   | d.  | TiO4 |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 32. The systematic (IUPAC) name of MgI2 is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | manganese iodide |
|   | b.  | manganese diiodide |
|   | c.  | magnesium iodide |
|   | d.  | magnesium (II) iodide |

|  |  |
| --- | --- |
| *ANSWER:* | c |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 33. The systematic (IUPAC) name of Sr(NO2)2 is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | strontium nitrate |
|   | b.  | strontium dinitrate |
|   | c.  | sirium nitrate |
|   | d.  | strontium nitrite |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 34. The systematic (IUPAC) name of CuO is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | copper (I) oxide |
|   | b.  | copper (II) oxide |
|   | c.  | copper oxide |
|   | d.  | copper (II) hydroxide |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 35. The systematic (IUPAC) name of NaClO4 is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | sodium perchlorate |
|   | b.  | sodium chlorate |
|   | c.  | sodium hypochlorate |
|   | d.  | sodium chloride tetraoxide |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Chemical Nomenclature |
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| 36. How many neutrons are present in 201Hg?

|  |  |  |
| --- | --- | --- |
|   | a.  | 201 |
|   | b.  | 80 |
|   | c.  | 283 |
|   | d.  | 121 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 37. How many electrons are present in 40Ca2+?

|  |  |  |
| --- | --- | --- |
|   | a.  | 40 |
|   | b.  | 38 |
|   | c.  | 20 |
|   | d.  | 18 |

|  |  |
| --- | --- |
| *ANSWER:* | d |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Ions |
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| 38. Which of the following chemical species contains 9 protons?

|  |  |  |
| --- | --- | --- |
|   | a.  | 16O |
|   | b.  | 19F |
|   | c.  | 35S |
|   | d.  | 32P |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 39. If an ion contains 33 protons, 39 neutrons, and 34 electrons, the ion is \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
|   | a.  | 73Se1− |
|   | b.  | 72As1− |
|   | c.  | 67Y1+ |
|   | d.  | 73Se1+ |

|  |  |
| --- | --- |
| *ANSWER:* | b |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Ions |
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| 40. Consider 235U. How many neutrons are present in this nuclide?

|  |  |  |
| --- | --- | --- |
|   | a.  | 143 |
|   | b.  | 235 |
|   | c.  | 92 |
|   | d.  | 177 |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 41. When electrons are shared between pairs of atoms rather than donated from one atom to another or mobile across an entire lattice, we have \_\_\_\_\_ bonding.

|  |  |
| --- | --- |
| *ANSWER:* | covalent |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Completion |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Compounds and Chemical Bonds |
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| 42. The atomic mass of an atom is the number of \_\_\_\_\_ in that particular atom.

|  |  |
| --- | --- |
| *ANSWER:* | protons and neutrons |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Completion |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 43. An \_\_\_\_\_ provides the relative ratio between the numbers of atoms of the different elements present in a compound.

|  |  |
| --- | --- |
| *ANSWER:* | empirical formula |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Completion |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Compounds and Chemical Bonds |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 44. The ratio of isotopes for a given element can be measured instrumentally using a \_\_\_\_\_.

|  |  |
| --- | --- |
| *ANSWER:* | mass spectrometer |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Completion |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 45. Atoms of the same element that have different numbers of neutrons are called \_\_\_\_\_.

|  |  |
| --- | --- |
| *ANSWER:* | isotopes |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Completion |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46. Potassium has two stable isotopes: 39K, which has a mass of 38.96 amu and makes up 93.26 % of the natural potassium found; and 41K, with a mass of 40.96 amu. What is the atomic weight of potassium?

|  |  |
| --- | --- |
| *ANSWER:* | 39.09 amu |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Hard |
| *QUESTION TYPE:* | Subjective Short Answer |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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| 47. Anions are negatively charged species that contain fewer electrons than protons.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Ions |
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| 48. Barium is an alkali metal.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | True / False |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 49. Which of the following is a metalloid?

|  |  |  |
| --- | --- | --- |
|   | a.  | Boron |
|   | b.  | Lithium |
|   | c.  | Uranium |
|   | d.  | Tungsten |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Easy |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | The Periodic Table |
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| 50. Which of the following isotopes has the highest number of neutrons?

|  |  |  |
| --- | --- | --- |
|   | a.  | 85Rb |
|   | b.  | 28Si |
|   | c.  | 79Br |
|   | d.  | 83Kr |

|  |  |
| --- | --- |
| *ANSWER:* | a |
| *POINTS:* | 1 |
| *DIFFICULTY:* | Moderate |
| *QUESTION TYPE:* | Multiple Choice |
| *HAS VARIABLES:* | False |
| *TOPICS:* | Atomic Structure and Mass |
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