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| 1. Which of the following would you classify as nano-scale?   |  |  |  | | --- | --- | --- | |  | a. | An amoeba (a unicellular animal) | |  | b. | Grounded coffee | |  | c. | A water molecule | |  | d. | A cell membrane | |  | e. | An ore of gold |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/11/2017 4:38 AM | |

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| The following information will be used to answer questions 2-6.  A) B) C)    D) E) |

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| 2. Which of the figures above depicts a gaseous element?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 2/10/2017 1:23 AM | |

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| 3. Which of the figures above depicts a homogeneous mixture?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/8/2016 12:42 AM | |

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| 4. Which of the figures above depicts a heterogeneous mixture?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 5. Which of the figures above depicts a liquid compound?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 6. Which of the figures above depicts a gaseous compound?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| The following information will be used to answer questions 7-12.  **A)** **B)** **C)** **D)** **E)** |

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| 7. Which of the figures above represents a gaseous compound?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter2 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 8. Which of the figures above represents a liquid element?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter2 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 9. Which of the figures above represents a homogeneous mixture?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter2 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 10. Which of the figures above represents a gaseous element?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter2 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 11. Which of the figures above represents a liquid compound?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter2 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 12. Which of the following substances is an element?   |  |  |  | | --- | --- | --- | |  | a. | F2 | |  | b. | C2H5OH | |  | c. | Sodium chloride | |  | d. | Water | |  | e. | Brass |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| The following information will be used to answer question 13.   |  |  |  | | --- | --- | --- | | A) | B) | C) | | D) | E) |  | |

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| 13. Which of the figures above represents a mixture of two elements?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *PREFACE NAME:* | matter3 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 14. What kind of change is depicted below?   |  |  |  | | --- | --- | --- | |  |  |  |  |  |  |  | | --- | --- | --- | |  | a. | Chemical change | |  | b. | Physical change | |  | c. | Both chemical and physical change | |  | d. | No change |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 15. What kind of change is depicted below?   |  |  |  | | --- | --- | --- | |  |  |  |  |  |  |  | | --- | --- | --- | |  | a. | chemical change | |  | b. | physical change | |  | c. | both chemical and physical | |  | d. | no change |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 16. How many significant figures are there in the number 0.097?   |  |  |  | | --- | --- | --- | |  | a. | 1 | |  | b. | 2 | |  | c. | 3 | |  | d. | 4 | |  | e. | 5 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/12/2017 12:41 AM | |

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| 17. How many significant figures are there in the number 75100?   |  |  |  | | --- | --- | --- | |  | a. | 1 | |  | b. | 2 | |  | c. | 3 | |  | d. | 4 | |  | e. | 5 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/12/2017 12:41 AM | |

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| 18. How many significant figures are there in the number 1.0720?   |  |  |  | | --- | --- | --- | |  | a. | 1 | |  | b. | 2 | |  | c. | 3 | |  | d. | 4 | |  | e. | 5 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/12/2017 12:41 AM | |

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| 19. How many significant figures are there in the number 0.0306960?   |  |  |  | | --- | --- | --- | |  | a. | 4 | |  | b. | 5 | |  | c. | 6 | |  | d. | 7 | |  | e. | 8 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 20. Carry out the following calculation and report your answer to the correct number of significant figures:  2.795 m × 3.10 m           6.48 m   |  |  |  | | --- | --- | --- | |  | a. | 1.3 m | |  | b. | 1.34 m | |  | c. | 1.337 m | |  | d. | 1.3371 m | |  | e. | 1.37711 m |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/28/2016 6:08 AM | |

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| 21. What is the best answer to report for (515 × 0.0025) + 24.57?   |  |  |  | | --- | --- | --- | |  | a. | 25.858 | |  | b. | 25.86 | |  | c. | 25.8575 | |  | d. | 26 | |  | e. | 25.9 |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 22. Solve the following calculation and report your ans to the correct number of significant figures:   |  |  |  | | --- | --- | --- | |  | a. | 8.64 | |  | b. | 2.44 x 109 | |  | c. | 2.44 x 10-7 | |  | d. | 1.79 x 10-15 | |  | e. | 1.06 x 10-19 |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/9/2017 8:08 AM | |

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| 23. When 87.7 is added to 73.841, the result should be reported with \_\_\_\_\_ significant figures. And when 87.7 is divided by 73.841 the result should be reported with \_\_\_\_\_\_ significant figures.   |  |  |  | | --- | --- | --- | |  | a. | 3, 3 | |  | b. | 3, 5 | |  | c. | 4, 3 | |  | d. | 4, 4 | |  | e. | 3, 4 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 24. When 45.24 is subtracted from 40.1, the result should have \_\_\_\_\_ significant figures. When 45.24 is multiplied by 40.1, the result should have \_\_\_\_\_ significant figures.   |  |  |  | | --- | --- | --- | |  | a. | 2 , 5 | |  | b. | 3 , 3 | |  | c. | 2 , 3 | |  | d. | 4 , 4 | |  | e. | 3 , 2 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 25. When 51.8 and 67.5 are multiplied, the product has \_\_\_\_ significant figures, and when 51.8 and 67.5 are added, the sum has \_\_\_\_ significant figures.   |  |  |  | | --- | --- | --- | |  | a. | 5 , 3 | |  | b. | 3 , 4 | |  | c. | 3 , 5 | |  | d. | 4 , 3 | |  | e. | 3 , 3 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 26. A quarter has a mass of 5.52 g. What is the mass of a quarter in milligrams?   |  |  |  | | --- | --- | --- | |  | a. | 55.2 mg | |  | b. | 552 mg | |  | c. | 5520 mg | |  | d. | 0.0552 mg | |  | e. | 0.00552 mg |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 27. How many days are equivalent to 27360 minutes?   |  |  |  | | --- | --- | --- | |  | a. | 1.9 days | |  | b. | 6.8 days | |  | c. | 10.9 days | |  | d. | 17 days | |  | e. | 19.00 days |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 28. How many centiliters are there in 250 liters?   |  |  |  | | --- | --- | --- | |  | a. | 2.5 x 102 centiliters | |  | b. | 2.5 x 104 centiliters | |  | c. | 2.5 centiliters | |  | d. | 2.5 x 10−2 centiliters | |  | e. | 2.5 x 10−4 centiliters |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 29. How many milligrams are in 0.025 kilograms?   |  |  |  | | --- | --- | --- | |  | a. | 25 mg | |  | b. | 250 mg | |  | c. | 2500 mg | |  | d. | 25000 mg | |  | e. | 250000 mg |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 30. A wavelength of red light is measured at 655 nm. What is this measurement in centimeters?   |  |  |  | | --- | --- | --- | |  | a. | 6.55 cm | |  | b. | 0.00655 cm | |  | c. | 6.55 x 10−5 cm | |  | d. | 6.55 x 10−7 cm | |  | e. | 6.55 x 10−9 cm |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 31. The wavelength of a beam of ultraviolet light is 247 nanometers (nm). What is the wavelength in meters?   |  |  |  | | --- | --- | --- | |  | a. | 2.47 x 10−3 m | |  | b. | 2.47 x 10−5 m | |  | c. | 2.47 x 10−7 m | |  | d. | 2.47 x 10−9 m | |  | e. | 2.47 x 10−12 m |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 32. Which is higher: 144oF or 63.6oC? { oF = 9/5(oC) + 32 }   |  |  |  | | --- | --- | --- | |  | a. | 144oF | |  | b. | 63.6oC | |  | c. | The temperatures are equivalent |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 33. The melting point of an unknown solid is determined to be 32.0oC. What is this temperature on the Kelvin scale? Report your answer to the correct number of significant figures.   |  |  |  | | --- | --- | --- | |  | a. | 241.2 K | |  | b. | 241.15 K | |  | c. | 305 K | |  | d. | 305.2 K | |  | e. | 305.15 K |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 34. As part of the calibration of a new laboratory balance, the mass of a 0.200 g mass standard is determined with the following results:   |  |  | | --- | --- | | **Trial** | **Mass** | | 1 | 0.216-g | | 2 | 0.196-g | | 3 | 0.187-g |  |  |  |  | | --- | --- | --- | |  | a. | The balance is both accurate and precise. | |  | b. | The balance is accurate but imprecise. | |  | c. | The balance is precise but inaccurate. | |  | d. | The balance is both inaccurate and imprecise. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/28/2016 6:19 AM | |

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| 35. As part of the calibration of a new laboratory balance, the mass of a 0.200 g mass standard is determined with the following results:   |  |  | | --- | --- | | **Trial** | **Mass** | | 1 | 0.204 g | | 2 | 0.207 g | | 3 | 0.189 g |   ​  Which of the statements is true for the new balance?   |  |  |  | | --- | --- | --- | |  | a. | The balance is both accurate and precise. | |  | b. | The balance is accurate but imprecise. | |  | c. | The balance is precise but inaccurate. | |  | d. | The balance is both inaccurate and imprecise. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 8/13/2014 5:22 AM | | *DATE MODIFIED:* | 2/1/2017 5:21 AM | |

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| 36. The liquid 1,2-ethanedithiol is insoluble in water. If a 75.5-g sample of 1,2-ethanedithiol has a volume of 61.2 mL, what is its density, and would it float or sink if poured into a beaker containing water?   |  |  |  | | --- | --- | --- | |  | a. | 1.23 g/mL and it would sink in water | |  | b. | 1.23 g/mL and it would float on water | |  | c. | 0.811 g/mL and it would sink in water | |  | d. | 0.811 g/mL and it would float on water |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/19/2016 12:50 AM | |

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| 37. An unknown solid was analyzed in order to ascertain its identity. The mass of the solid was found to be 385.8 g. When the solid was dropped into a graduated cylinder containing 45.5 mL of water, the water level rose to 65.2 mL. The most likely identity of the metal is:   |  |  |  | | --- | --- | --- | |  | a. | Aluminum, d = 2.72 g/mL | |  | b. | Silver, d = 10.50 g/mL | |  | c. | Lead, d = 11.34 g/mL | |  | d. | Tungsten, d = 19.38 g/mL | |  | e. | Platinum, d = 21.46 g/mL |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 38. A general chemistry student found a chunk of metal in the basement of a friend's house. She measured the mass of the metal to be 383.6 g. Then she dropped the metal into a graduated cylinder containing 25.0 mL of water, and the water level rose to 43.0 mL. Of the following metals, which is the most likely:   |  |  |  | | --- | --- | --- | |  | a. | Aluminum, d = 2.72 g/mL | |  | b. | Silver, d = 10.50 g/mL | |  | c. | Lead, d = 11.34 g/mL | |  | d. | Tungsten, d = 19.38 g/mL | |  | e. | Platinum, d = 21.46 g/mL |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 39. A general chemistry student found a chunk of metal in the basement of a friend's house. She measured the mass of the metal to be 238.7 g. Then she dropped the metal into a graduated cylinder containing 35.0 mL of water, and the water level rose to 47.3mL. Of the following metals, which one did she use?   |  |  |  | | --- | --- | --- | |  | a. | Aluminum, d = 2.72 g/mL | |  | b. | Silver, d = 10.50 g/mL | |  | c. | Lead, d = 11.34 g/mL | |  | d. | Tungsten, d = 19.38 g/mL | |  | e. | Platinum, d = 21.46 g/mL |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *NOTES:* | this question is a dynamic form of question 39 | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 2/20/2017 12:31 AM | |

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| 40. An empty Erlenmeyer flask weighs 241.3 g. When filled with water (density = 0.997 g/mL), the flask and its contents weigh 489.1 g. What volume of water does the flask hold?   |  |  |  | | --- | --- | --- | |  | a. | 246. mL | |  | b. | 247. mL | |  | c. | 248. mL | |  | d. | 249. mL | |  | e. | 241. mL |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 41. An empty Erlenmeyer flask weighs 230.59999999999999 g . When filled with ethyl alcohol (density = 0.789 g/mL), the flask and its contents weigh 585.20000000000005 g. What volume of ethyl alcohol does the flask hold?   |  |  |  | | --- | --- | --- | |  | a. | 220.74594660000005 mL | |  | b. | 279.77940000000001 mL | |  | c. | 354.60000000000002 mL | |  | d. | 449.42965779467681 mL | |  | e. | 181.9434 mL |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 42. Which one of the following substances is classified as an element?   |  |  |  | | --- | --- | --- | |  | a. | I2 | |  | b. | NO | |  | c. | KCl | |  | d. | C6H12O6 | |  | e. | CO |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 43. Which one of the following substances is classified as a chemical compound?   |  |  |  | | --- | --- | --- | |  | a. | He | |  | b. | Nb | |  | c. | Na | |  | d. | NO | |  | e. | Co |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 44. Which of the following is an example of a chemical change?   |  |  |  | | --- | --- | --- | |  | a. | alcohol evaporating | |  | b. | water boiling | |  | c. | skin burning in the sun | |  | d. | iodine vaporizing | |  | e. | ice melting |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 45. Which of the following is an example of a chemical change?   |  |  |  | | --- | --- | --- | |  | a. | silver tarnishing | |  | b. | iodine sublimating | |  | c. | alcohol boiling | |  | d. | sucrose dissolving | |  | e. | sodium chloride melting |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 46. Which of the following is a mixture?   |  |  |  | | --- | --- | --- | |  | a. | a homogeneous solution of sugar dissolved in water | |  | b. | bromine (a liquid with the formula Br2) | |  | c. | sucrose (table sugar: the formula is C12H22O11) | |  | d. | graphite (an allotrope of carbon) | |  | e. | calcium oxide (CaO or lime) |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 47. All of the following are examples of mixtures except   |  |  |  | | --- | --- | --- | |  | a. | supermarket salt. | |  | b. | distilled water. | |  | c. | soft water. | |  | d. | hard water. | |  | e. | drugstore hydrogen peroxide. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 48. All of the following are homogeneous mixtures except   |  |  |  | | --- | --- | --- | |  | a. | sodium chloride and potassium chloride. | |  | b. | hydrogen gas and chlorine gas. | |  | c. | sodium chloride and potassium chloride solution. | |  | d. | mercury-zinc solution. | |  | e. | hydrochloric acid solution. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 49. Express the number 0.000207 in scientific notation.   |  |  |  | | --- | --- | --- | |  | a. | 207 × 10–6 | |  | b. | 2.07 × 102 | |  | c. | 2.07 × 104 | |  | d. | 2.07 × 10–4 | |  | e. | 0.207 × 10–3 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 8/13/2014 6:06 AM | | *DATE MODIFIED:* | 1/9/2017 8:17 AM | |

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| 50. The melting point of a solid is 41°F. This corresponds to   |  |  |  | | --- | --- | --- | |  | a. | 296 K. | |  | b. | 314 K. | |  | c. | 289 K. | |  | d. | 278 K. | |  | e. | 314 K. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 8/13/2014 6:39 AM | |

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| 51. The melting point of a certain solid is -25 °C. This corresponds to   |  |  |  | | --- | --- | --- | |  | a. | 12.6 °F. | |  | b. | -31.666666666666668 °F. | |  | c. | -13 °F. | |  | d. | -102.60000000000001 °F. | |  | e. | 18.111111111111111 °F. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 52. A piece of metal (mass = 17.675999999999998 g) is placed in 11 mL of chloroform (*d* = 1.498 g/mL) in a 25-mL graduated cylinder. The chloroform level increases to 15.46 mL. The best value for density of this metal from these data is   |  |  |  | | --- | --- | --- | |  | a. | 1.1433376455368691 g/mL. | |  | b. | 2.6456800397540507 g/mL. | |  | c. | 3.9632286995515682 g/mL. | |  | d. | 5.9369165919282487 g/mL. | |  | e. | 3.9632286995515682 g/mL. |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 53. The number of significant figures in 3.3990 × 10–12 pm is   |  |  |  | | --- | --- | --- | |  | a. | 5. | |  | b. | 6. | |  | c. | 3. | |  | d. | 7. | |  | e. | 4. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/11/2017 10:12 PM | |

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| 54. How many significant figures are there in the value 0.086249999999999993 m?   |  |  |  | | --- | --- | --- | |  | a. | 4 | |  | b. | 3 | |  | c. | 2 | |  | d. | 5 | |  | e. | 6 |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 55. How many significant figures are there in the measured value 69.379999999999995?   |  |  |  | | --- | --- | --- | |  | a. | 2 | |  | b. | 3 | |  | c. | 6 | |  | d. | 5 | |  | e. | 4 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/12/2016 3:57 AM | |

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| 56. What is the best answer to the following expression? (55.780000000000001 cm + 0.82899999999999996 cm + 4.6665999999999999 cm – 52.399999999999999 cm)   |  |  |  | | --- | --- | --- | |  | a. | 8.8756000000000057 cm | |  | b. | 8.8756000000000057 cm | |  | c. | 8.8756000000000057 cm | |  | d. | 8.8756000000000057 cm | |  | e. | 8.8756000000000057 cm |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 57. What is the best answer to report for ?   |  |  |  | | --- | --- | --- | |  | a. | 5.015 g/mL | |  | b. | 5.0154 g/mL | |  | c. | 5.0 g/mL | |  | d. | 5.02 g/mL | |  | e. | 5.01539 g/mL |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/19/2017 5:44 AM | |

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| 58. How much feet (ft) is contained in 0.315 km, given that 1 mile = 1.609 km and 5280 ft = 1 mile (exact).   |  |  |  | | --- | --- | --- | |  | a. | 1030 ft | |  | b. | ft | |  | c. | ft | |  | d. | 2670 ft | |  | e. | ft |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/11/2017 7:04 AM | |

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| 59. How many liters are in 99.2 fluid ounces of a soft drink? (1 fl oz = 28.35 mL)   |  |  |  | | --- | --- | --- | |  | a. | 3.50 × 10–3 L | |  | b. | 3.50 × 103 L | |  | c. | 2.81 × 106 L | |  | d. | 2.81 × 103 L | |  | e. | 2.810 L |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 60. A 0.41199999999999998-kg sample of methylene chloride has a density of 1.326 g/cm3. Calculate its volume.   |  |  |  | | --- | --- | --- | |  | a. | 3220 cm3 | |  | b. | 0.00031070889894419304 cm3 | |  | c. | 412 cm3 | |  | d. | 310.70889894419304 cm3 | |  | e. | 546.31200000000001 cm3 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 61. The measurement 5.4 x 10-1 g also could be written as   |  |  |  | | --- | --- | --- | |  | a. | 5.4 μg. | |  | b. | 5.4 mg. | |  | c. | 5.4 cg. | |  | d. | 5.4 kg. | |  | e. | 5.4 dg. |  |  |  | | --- | --- | | *ANSWER:* | e | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 2/10/2017 1:38 AM | |

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| 62. What is the correct answer to the expression below?   =   |  |  |  | | --- | --- | --- | |  | a. | 8.63 cm | |  | b. | 8.6369 cm | |  | c. | 8.6 cm | |  | d. | 8.636 cm | |  | e. | 8 cm |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/19/2017 7:24 AM | |

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| 63. Which of the following is an example of a chemical change?   |  |  |  | | --- | --- | --- | |  | a. | iron rusting | |  | b. | sodium chloride melting | |  | c. | ice melting | |  | d. | sucrose dissolving | |  | e. | water boiling |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 12/12/2016 4:19 AM | |

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| 64. The element name and symbol is correctly matched for which of the following?   |  |  |  | | --- | --- | --- | |  | a. | Mg -   manganese | |  | b. | Tn - tin | |  | c. | Fe - iron | |  | d. | P - potassium | |  | e. | C - copper |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 65. Gold bar is a(n)   |  |  |  | | --- | --- | --- | |  | a. | compound. | |  | b. | element. | |  | c. | homogeneous mixture. | |  | d. | heterogeneous mixture. | |  | e. | gas. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/12/2017 1:08 AM | |

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| 66. Which of the following is not the symbol of an element?   |  |  |  | | --- | --- | --- | |  | a. | Cr | |  | b. | CO | |  | c. | Ca | |  | d. | C | |  | e. | Cd |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 67. Bacteria, sugar molecules, and water droplets are matter at the:   |  |  |  | | --- | --- | --- | |  | a. | microscale, nanoscale, macroscale. | |  | b. | macroscale, nanoscale, microscale. | |  | c. | microscale, macroscale, nanoscale. | |  | d. | nanoscale, microscale, macroscale. | |  | e. | none of these choices. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 68. Three length scales ordered from smallest to largest are:   |  |  |  | | --- | --- | --- | |  | a. | microscale, macroscale, nanoscale. | |  | b. | macroscale, nanoscale, microscale. | |  | c. | microscale, nanoscale, macroscale. | |  | d. | nanoscale, microscale, macroscale. | |  | e. | none of these choices. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 69. Which of the following is not a physical property of water?   |  |  |  | | --- | --- | --- | |  | a. | Water can be broken down into hydrogen gas and oxygen gas. | |  | b. | Water is a liquid at room temperature. | |  | c. | Water freezes at 32 °F. | |  | d. | Water boils at 100 °C. | |  | e. | Water is transparent to visible light. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 70. Which of the following is a chemical property of iron?   |  |  |  | | --- | --- | --- | |  | a. | Iron melts at 1535 °C. | |  | b. | Iron rusts on exposure to water and oxygen. | |  | c. | Iron can be bent into shapes. | |  | d. | Iron conducts electricity. | |  | e. | Iron conducts heat. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 71. Sugar, coffee, and bismuth are:   |  |  |  | | --- | --- | --- | |  | a. | a pure substance, a heterogeneous mixture, and an element. | |  | b. | an element, a homogeneous mixture, and a pure substance. | |  | c. | a homogeneous mixture, a pure substance, and a homogeneous mixture. | |  | d. | an element, a pure substance, and a homogeneous mixture. | |  | e. | none of these choices. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 72. Which metric prefix(es) listed below is(are) correctly assigned the proper power of ten?   |  |  | | --- | --- | | I. | giga: 109 | | II. | micro: 106 | | III. | nano: 10−12 |  |  |  |  | | --- | --- | --- | |  | a. | I only | |  | b. | II only | |  | c. | III only | |  | d. | I and II | |  | e. | II and III |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 73. How would the measurement, 5125 m, be rounded off to three significant digits and expressed in scientific notation?   |  |  |  | | --- | --- | --- | |  | a. | 5.12 × 10−3 m | |  | b. | 5.13 × 10−3 m | |  | c. | 5.130 × 10−3 m | |  | d. | 5.12 × 103 m | |  | e. | 5.13 × 104 m |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 74. Three students measured the freezing temperature of water in the laboratory. Their results are as follows:   |  |  | | --- | --- | | Student 1: | freezing temperature = 2.86 °C | | Student 2: | freezing temperature = −4.52 °C | | Student 3: | freezing temperature = 3.21 °C |   The actual freezing temperature of water equals 0.00 °C. The results of these three students when compared to the true freezing temperature of water demonstrates:   |  |  |  | | --- | --- | --- | |  | a. | High accuracy and high precision | |  | b. | High accuracy and low precision | |  | c. | Low accuracy and high precision | |  | d. | low accuracy and low precision | |  | e. | None of these |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 75. What is the temperature given by the thermometer below written with the proper number of significant digits?   |  |  |  | | --- | --- | --- | |  | a. | 32.3 °C | |  | b. | 32.30 °C | |  | c. | 32 °C | |  | d. | 32.300 °C | |  | e. | 30 °C |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 76. The speed of light in a vacuum is 2.998 × 108 m/s. What is this speed given in cm/min?   |  |  |  | | --- | --- | --- | |  | a. | 1.799 × 1013 cm/min | |  | b. | 1.799 × 1012 cm/min | |  | c. | 4.997 × 108 cm/min | |  | d. | 1.799 × 108 cm/min | |  | e. | 4.997 × 104 cm/min |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 77. What is the mass of 25.0 mL of an oil if its density is 0.843 g/mL?   |  |  |  | | --- | --- | --- | |  | a. | 29.7 g | |  | b. | 21.1 g | |  | c. | 15.2 g | |  | d. | 38.4 g | |  | e. | 211 g |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 3/5/2014 6:46 PM | |

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| 78. The diameter of a US Quarter is approximately 2.35 cm. What is the diameter of the quarter expressed in km and scientific notation?   |  |  |  | | --- | --- | --- | |  | a. | 2.35 × 10−5 km | |  | b. | 2.35 × 105 km | |  | c. | 2.35 × 10−2 km | |  | d. | 23.5 × 10−4 km | |  | e. | 2.35 km |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 3/5/2014 6:46 PM | | *DATE MODIFIED:* | 1/12/2017 1:01 AM | |

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| The following information will be used to answer questions 2-6.  A) B) C)    D) E) |

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| 79. Which of the figures above depicts a liquid compound?   |  |  |  | | --- | --- | --- | |  | a. | A | |  | b. | B | |  | c. | C | |  | d. | D | |  | e. | E |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | True | | *PREFACE NAME:* | matter1 | | *DATE CREATED:* | 2/3/2017 2:14 AM | | *DATE MODIFIED:* | 2/3/2017 2:49 AM | |

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| 80. How many of the following ions are named correctly?  ​  Ca2+ - Calcium ion  Ni2+ - Nickel ion  Cu+ - Copper (I) ion  Cl- - Chlorine ion  ​   |  |  |  | | --- | --- | --- | |  | a. | 0 | |  | b. | 1 | |  | c. | 2 | |  | d. | 3 | |  | e. | 4 |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 7/20/2017 10:18 AM | | *DATE MODIFIED:* | 7/20/2017 10:32 AM | |

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| 81. What is the oxidation number of nitrogen in NO3?   |  |  |  | | --- | --- | --- | |  | a. | 0 | |  | b. | +3 | |  | c. | -3 | |  | d. | +6 | |  | e. | -6 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 7/20/2017 10:25 AM | | *DATE MODIFIED:* | 7/20/2017 10:32 AM | |

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| 82. What is the oxidation number of hydrogen in CaH2?   |  |  |  | | --- | --- | --- | |  | a. | 0 | |  | b. | +1 | |  | c. | +2 | |  | d. | -1 | |  | e. | +1 |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *QUESTION TYPE:* | Multiple Choice | | *HAS VARIABLES:* | False | | *DATE CREATED:* | 7/20/2017 10:33 AM | | *DATE MODIFIED:* | 7/20/2017 10:34 AM | |