Chemistry 141 Name

Martin Larter Quiz 1 (23 points) February 5, 2016

1. (3 points) Complete the calculation, and report your answers using scientific notation, and the correct number of significant figures.

1. (8 points) Classify the following as either a physical property, physical change, chemical property, or chemical change:

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|  | 1. The production of flatulence in mammals ☺ |
|  | 1. Nail polish remover evaporating when the top is left open |
|  | 1. Platinum’s resistibility to corrosion in air |
|  | 1. The stench of an egg |

1. (6 points) A plastic material called HDPE or high density polyethylene was once evaluated for use in impact resistant hulls of small utility boats used for the navy. A cube of the material measures 1.20 x 10-3 m on a side and has a mass of 1.70 x 10-3 Kg. Seawater at the surface of the ocean has a density of 1.03 g/mL. Will the cube float on water? (from book problem 1.71)
2. (6 points) In the S temperature scale, the normal freezing point of water is exactly 12°S and the boiling point of water is exactly 142°S (measured values). Derive temperature equation and calculate 72°S in °F?  Freezing point of water is 32°F and the boiling point of water is 212°F (exact values).