Deep Run High School

CHEMISTRY I: 3(A), 4(A), 5(A), 7(A)

Unit 1 Quiz

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Name: _____ Score: / 100

Question 1 /1

Increasing the temperature will

- [ ] decrease the rate of evaporation.
- [ ] increase the rate of evaporation.
- [ ] have no effect on the rate of evaporation.
- [ ] slowly stop evaporation.

Question 2 /1

What physical property enables decanting to separate a mixture of immiscible liquids?

- [ ] boiling point
- [ ] particle size
- [ ] density
- [ ] mass

Name: _____

Question 3 /1

The number 0.03746 rounded to three significant digits is

- ☐ **0.0380**
- ☐ **0.0374**
- ☐ **0.037**
- ☐ **0.0375**

Question 4 /1

The number 0.0005030040 rounded to two significant figures is

- ☐ 50
- ☐ 503
- ☐ 0.000503
- ☐ 0.00050

Name: _____

Question 5 /1

Which laboratory techniques can be used to separate a mixture of **sand and salt water** into the individual components?

- ☐ filtration and evaporation
- ☐ magnetism and filtration
- ☐ chromatography and a centrifuge
- ☐ a separatory funnel and decanting

Question 6 /1

How many significant digits are in the measurement 0.03070 g?

- ☐ **6**
- ☐ **3**
- ☐ **4**
- ☐ **5**

Name: _____

Question 7 /1

How many significant digits are in the measurement 40400 g?

- ☐ 5
- ☐ 4
- ☐ 2
- ☐ 3

Question 8 /1

Record the difference in volume to the proper number of significant figures.

53.25 ml - 13.75 ml = _____

- ☐ 40.0 ml
- ☐ 39.5 ml
- ☐ 40.00 ml
- ☐ 39.50 ml

Name: _____

Question 9 /1

Record the product of these measurements to the proper number of significant figures.

8.5 m x 5.10 m x 7.890 m = _____

- ☐ **342.0315 m^3**
- ☐ **342.032 m^3**
- ☐ **340 m^3**
- ☐ **342 m^3**

Question 10 /1

Express this number in standard notation: 2.3050×10^{3}

- ☐ 0.0023050
- ☐ 2.3050
- ☐ 2305
- ☐ 2305.0

Name: _____

Question 11 /1

Express the following in standard notation: **3.0030×10^{-3}**

- [ ] 0.0030030
- [ ] 0.3003000
- [ ] 3.0030
- [ ] 3003.0

Question 12 /1

This piece of lab equipment is used for heating, mixing chemicals, observing reactions and for measuring approximate volumes of liquids.

- [ ] Graduated Cylinder
- [ ] Beaker
- [ ] Burret
- [ ] Wash Bottle

Name: _____

Question 13 /1

Which piece of equipment may be used to direct liquids into a container without spilling or may be used with filter paper to separate liquids from solids?

☐ 

☐ 

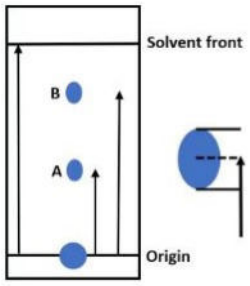
☐ 

☐ 

Name: _____

Question 14 /1

When using the thin layer chromatography technique, which substance will have the largest Retention Factor (Rf)?



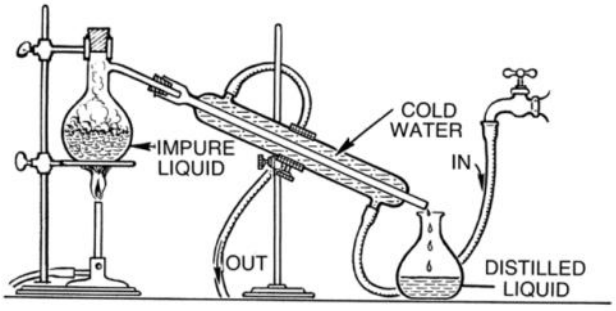
$$R_f = \frac{Distance\ traveled\ by\ component}{Distance\ traveled\ by\ solvent}$$

- ☐ The component with the highest solubility.
- ☐ The component with the highest density.
- ☐ The component with the lowest boiling point.
- ☐ The component with the largest particle size.

Name: _____

Question 15 /1

Which liquid is condensed in the process of distillation?



- ☐ The liquid with more mass.
- ☐ The liquid with a higher density.
- ☐ The liquid with a lower boiling point.
- ☐ The liquid with a higher boiling point.