Ch. 2 Practice Questions

1) The correct scientific notation for the number 0.00050210 is: 1) _____

A) 5.0210×10^{-4}

B) 5.021×10^{4}

C) 5.0210×10^{4}

D) 5.021×10^{-4}

E) none of the above

2) The correct scientific notation for the number 500.0 is: 2) _____

A) 5×10^{2}

B) 5.000×10^{2}

C) 5×10^{-2}

D) 5.00×10^{2}

E) none of the above

3) The correct number of significant figures in the number 0.027090 is: 3) _____

A) 5

B) 6

C) 7

D) ambiguous

E) none of the above

4) When the value 4.449 is rounded to two significant figures, the number should be reported as: 4) _____

A) 4.45

B) 4.4

C) 4.5

D) 4.44

E) none of the above

5) How many significant digits should be reported in the answer to the following calculation? 5) _____

$(4.3 - 3.7) \times 12.3 =$

A) 1

B) 2

C) 3

D) 4

E) none of the above

6) Determine the answer to the following equation with correct number of significant figures: 6) _____

$13.96 - 4.9102 + 71.5 =$ _____

A) 80.5

B) 80.55

C) 80.5498

D) 81

E) none of the above

7) Determine the answer to the following equation with correct number of significant figures: 7) _____
(4.123 × 0.12) + 24.2 = _____
A) 24.70
B) 24.695
C) 24.7
D) 25
E) none of the above

8) The correct prefix for the multiplier 1,000,000 is: 8) _____
A) nano.
B) micro.
C) milli.
D) mega.
E) none of the above

9) What is the base SI unit for mass? 9) _____
A) kilogram
B) pound
C) ton
D) gram
E) none of the above

10) The correct multiplier for the prefix micro is: 10) _____
A) 10^{-6}
B) 10^{-9}
C) 10^{6}
D) 10^{3}
E) none of the above

11) Which measurement below represents the heaviest mass? 11) _____
A) 1 Mg B) 1 dg C) 1 kg D) 1 mg E) 1 pg

12) Which of the following sets of units is NOT in the order of increasing size? 12) _____
A) cm < μm < km
B) ns < ms < s
C) μg < g < kg
D) mL < dL < L
E) μmol < mmol < mol

13) An American nickel five cent coin has a mass of approximately 5 grams. Five grams is equivalent to which term? 13) _____
A) 5000 micrograms
B) 5000 kilograms
C) 5000 milligrams
D) 50 centigrams
E) none of the above

14) How many inches are in 25.8 cm? 14) _____

A) 0.0984
B) 28.3
C) 0.10
D) 10.2
E) none of the above

15) How many grams are in 1.48×10^7 μg? 15) _____

A) 1.48
B) 1.48×10^{13}
C) 14.8
D) 1.48×10^3
E) none of the above

16) How many microliters are in 41.0 mL? 16) _____

A) 4.10×10^4
B) 4.1×10^{10}
C) 0.041
D) 4.1×10^3
E) none of the above

17) How many low dose 81 mg aspirin tablets can be made from 1.21 kg of aspirin? 17) _____

A) 1.21×10^3 tablets
B) 1.5×10^5 tablets
C) 1.21×10^4 tablets
D) 1.5×10^3 tablets
E) 1.5×10^4 tablets

18) A 12–oz can of soda pop costs eighty–nine cents. A 2.00 L bottle of the same variety of soda pop costs $2.29. How many times more expensive it is to buy the 12–oz can of pop compared to buying it in a 2.00 L bottle? (1.00 L = 1.057 quart and 1 quart contains 32 oz) 18) _____

A) 4.2 B) 2.2 C) 2.6 D) 1.9 E) 2.8

19) Given the density of Au is 19.3 g/cm^3, determine the mass of gold (in grams) in an ingot with the dimensions of 10.0 in × 4.00 in × 3.00 in. 19) _____

A) 3.80×10^4
B) 2.32×10^3
C) 0.161
D) 102
E) none of the above

20) What is the density (g/mL) of an object that has a mass of 14.01 grams and, when placed into a graduated cylinder, causes the water level to rise from 25.2 mL to 33.6 mL? 20) _____

A) 1.7
B) 0.60
C) 2.4
D) 1.8
E) none of the above

21) A lead ball has a mass of 55.0 grams and a density of 11.4 g/cm^3. What is the volume of the ball? 21) _____

A) 4.82 mL
B) 4.82 L
C) 0.207 mL
D) 0.207 L
E) none of the above

22) The Olympic Games shot put field event uses a 16 pound (lb) shot. Identify the correct solution map to convert from pounds to kilograms using prefix multipliers and the given conversions of 16 oz = 1 lb and 453.6 g = 16 oz. 22) _____

A) $16\text{ lb} \times \frac{16\text{ oz}}{1\text{ lb}} \times \frac{453.6\text{ g}}{16\text{ oz}} \times \frac{1\text{ kg}}{10^3\text{ g}}$

B) $16\text{ lb} \times \frac{16\text{ oz}}{1\text{ lb}} \times \frac{453.6\text{ g}}{16\text{ oz}} \times \frac{10^3\text{ kg}}{1\text{ g}}$

C) $16\text{ lb} \times \frac{1\text{ lb}}{16\text{ oz}} \times \frac{16\text{ oz}}{453.6\text{ g}} \times \frac{10^3\text{ g}}{1\text{ kg}}$

D) $16\text{ lb} \times \frac{1\text{ oz}}{16\text{ lb}} \times \frac{453.6\text{ g}}{16\text{ oz}} \times \frac{1\text{ kg}}{10^3\text{ g}}$

Answer Key
Testname: PRACTICEQ_CH02

1) A
2) B
3) A
4) B
5) A
6) A
7) C
8) D
9) A
10) A
11) A
12) A
13) C
14) D
15) C
16) A
17) E
18) B
19) A
20) A
21) A
22) A