Mathematics for Veterinary Technicians
Test #2 – Form F
100 Points Total
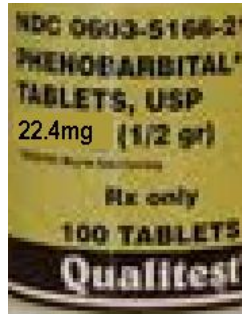
Name: _____   Date: _____

Questions cover work from chapter 1 thru 9. Show your work!!!!!

Identify the correct concentration from the following medicine bottles and tablets. Write your answers to the right of the label or bottle.

1.

2.

3. Compute the answers:

   a.   18.12 x 3.56   b. 4.75 x 38.1

4. Compute the answers to two decimal places:

   a.   9.25 ÷ 0.135   b. 10718.5 ÷ 0.152

5. Convert the following to scientific notation:
   a.   125,921,000   ____ . ____ ____ x 10
   b.   0.00001996   ____ . ____ ____ x 10

6. Convert the following to standard notation:
   c.   -2.3 x 10^7 _____
   d.   1.09 x 10^{-3} _____

7. Change to percent
a. $^1/_{32}$ b. $^5/_8$

c.   9.81   d.   3.25

8. What is
a.   11% of 85.6 kg   b.   12.75% of 190 mg

c.   110% of 240 ml   d.   0.085% of 3 oz

1

9. Change to decimal

a.   83% [ ]   b.   14.5% [ ]

c.   416% [ ]   d.   0.033% [ ]

10. Change to a fraction (lowest terms please)

a.   206% [ ]   b.   23% [ ]

c.   -40.5% [ ]   d.   0.001% [ ]

11. We ordered 350 pounds of lab chemicals.

   a.   What percentage would be left over if we used 36 lbs?

   b.   If we found that 10% of the lab chemicals were contaminated, what amount is that?

12. Convert the following to the proper unit of measurement

a.   41 g / 100 ml [ ]   b.   9.3 g / 100 ml [ ]

13. Convert the following to the proper unit of measurement

a.   14.1 g of dextrose in 100 ml solution [ ]   b.   65 ml of sodium chloride in 100 ml solution [ ]

14. Convert the following Packed Cell Numbers to the proper unit of measurement

a.   33 cat_1 [ ]   b.   26 dog_2 [ ]

15. Convert the following solutions to percents

a.   19 ml of dextrose in 100 ml [ ]   b.   3.8 ml of formalin in 100 ml [ ]

c.   11 ml of dextrose in 100 ml [ ]   d.   42 ml of formalin in 100 ml [ ]

16. Reduce the ratio to fraction form

a.   4:64 [ ]   b.   21:57 [ ]

17. Solve the following. Be sure to show units where applicable

a. $\dfrac{500mg}{1\ cap} = \dfrac{1250mg}{N\ cap}$ [ ]

b. $\dfrac{800mg}{10ml} = \dfrac{75mg}{N\ ml}$ [ ]

18. Calculate the conversion and show the calculation in the box to the right of the answer

19 kg =		g	
3 tsp =		ml	
4.5 L =		ml	
13 fl oz =		ml	
15 g =		mg	
190 lb =		kg	
35 lb =		oz	
3 gal =		c	
4.5 qt =		pt	
0.456 kg =		g	
2.5 gr =		mg	
75 ml =		tbsp	
500 ml =		fl oz	
1.5 tsp =		ml	
735 ml =		L	
15 gr =		mg	
8 qt =		c	
16 in =		ft	
4.5 in =		cm	

19 mm =		cm	
1.75 g =		mg	
14 tbsp =		fl oz	
23 cups =		qt	
79°C =		°F	
185°F		°C	
-31°C =		°F	
-21°F =		°C	

19. The veterinarians orders 35 mg of medication in every 100 ml of liquid. How much liquid is required to administer 86 mg of medication?

20. When performing an estimate platelet count, these cells are counted per high power field and the total from 10 fields are all added together. Next this is multiplied by 15000. You observe 10 fields and the fields have a total number of 94 platelets. What is the final count of platelets? Please provide your answer in scientific notation.

21. If a bag of dog food costs $16.99 each and we buy 7 bags a week, how much money would we spend on kitten food in 12 weeks?

22. If one tablet contains 550 mg of drug, how many milligrams of drug does 5 tablets have?

23. Lisa works at an animal clinic and receives a 20% discount. What would Lisa pay for the $500 treatment?

24. Today we saw 45 dogs and 15 cats in the clinic. What is the ratio of dogs to cats?

25. We estimate that our costs will rise 11% this year. What can we say our average $75 lab cost per animal will rise to?

26. A patient receives a total of 50g of medication. If the patient received the total over a 5-day period and was given 3 doses a day, what was the strength of each dose?