# **Borough of Manhattan Community College Department of Mathematics**

MAT 104	Name
Date	Prof. L.Erstenyuk

#### **EXAM 1 REVIEW**

<u>Directions:</u> Practice to show all work to receive a full credit on the actual exam. Simplify and label the answers. No calculators allowed on the exam. The actual exam will be graded on clarity, organization, neatness, as well as correctness. Total points on the exam 100.

## Part I. Math Refresh.

1. Find the largest decimal: 0.029, 0.0074, 0.003, 0.0289

Answer:\_\_\_\_\_

2. Subtract: 12 - 0.07

Answer:\_\_\_\_\_

3. Add: 8.34 + 1.26

Answer:\_\_\_\_\_

4. Multiply:  $3.62 \times 0.005$ 

Answer:\_\_\_\_\_

5. Divide the fraction. Round the answer to the nearest hundreds.

 $\frac{0.127}{0.22}$ 

Answer:\_\_\_\_\_

6. Perform the following operations. Round the answer to the nearest tenth.

$$\frac{0.48}{1.1} \times \frac{0.5}{0.8}$$

Answer:\_\_\_\_\_

# Part II. Introduction to Drug Measures

In problems 7-10 convert to the units indicated. 7. 1.2 L =\_\_\_\_\_L 8.  $234 \text{ mcg} = \underline{\qquad \qquad g} = \underline{\qquad \qquad mg}$  $3.8 \text{ g} = \underline{\qquad} \text{mg}; \quad 50 \text{ mg} = \underline{\qquad} \text{g}$ 9. 10. 2 tbs = mL = Oz11. ISMP (or TJC) is an abbreviation\* (\*hint: Review <a href="https://www.ismp.org/about">https://www.ismp.org/about</a>, or https://www.jointcommission.org/about us/about the joint commission main.aspx) The organization provides the following services \_\_\_\_\_ 12. Describe the Right Route of medication administration \*\*\_\_\_\_\_ 13. Describe the Right Client of medication administration\*\*\_\_\_\_\_ (\*\*Hint: could be any 2 rights of safe medication administration) 14. Interpret the following abbreviations (could be any highlighted in class). b) IM c) q.i.d. a) q4h e) LA d) n.p.o. f) a.c.

- 15. Interpret the following orders. Use *administer* or *give* at the beginning of the sentence.
- a) Vitamin  $B_{12}$  1,000 mcg IM T.i.w.
- b) Morphine sulfate 15 mg subcut stat and 10 mg subcut q4h p.r.n. for pain.

16. Transcribe the following orders to the Medication Administration Chart (MAR) for one shift from 8:00 am to 8:00 pm. When you have completed this, place your initials and signature in the appropriate space on the medication form. Use the times indicated and the beginning date 10/01/18. Indicate client has no known drug allergies. Diagnosis: Pneumonia.

- a) Ibuprofen 400 mg tab p.o. b.i.d. (9A), expiration date 10/10/18.
- b) Amoxil 1 tsp. p.o. q8h (9A), expiration 10/10/18.

c)	Diclofenac	125 mg	IM stat,	expiration	10/10/18

(8 points)

# DEPARTMENT OF NURSING MEDICATION RECORD

Diagnosis:	
ALLERGIES	Date

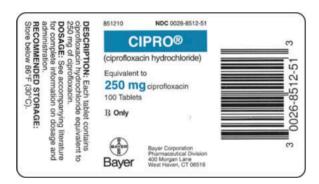
Order Date	Exp. Date	Initials	PRN MEDICATIONS MED=Dose_Freq-Route		
				Date	
				Time	
				Initial	
				Date	
				Time	
				Initial	
				Date	
				Time	
				Initial	
			·		

### Part III. Reading Medication Labels and Syringe Calibrations.

17. Read the label and identify the information requested.

(9 points)

a)



Trade Name

Generic Name

Total amount in container

Dosage strength

Form

Storage directions

HEPARIN SODIUM
INJECTION, USP

5,000 USP Units/mL
For IV or SC Use Rx only
(Derived from Porcine Intestinal Mucosa)
1 mL Multiple Dose Vial

NOT for Lock Flush

Sterile, Nonpyrogenic
Each m.L.contains:
5,000USP Units heparinsodium;
5 mgsodium chloride; 1.5mg
methylparaben; 0.15mg propylpar aben; Water for injectionq.s.
Hydroxhloric acid and/or sodium
hydroxhlo may have been added
forph adjustment.
Usual Dosage: See insert.
Use only if solution is clear and
seal intact.
Store at 20° to 25° C (68° to
77° F) [see USP Controlled Room
Temperature].
This container closure is not
made from natural rubber latex.

APP Pharmaceuticals, LLC
schaumburg, IL 60173

Trade Name

Generic Name

Total volume

Dosage strength

Route

c) SINEMET® CR (CARBIDOPA-LEVODOPA) SUSTAINED-RELEASE NDC 0056-0521-85 50-200 3570/9535803 70416/SE **500 TABLETS** USUAL ADULT DOSAGE: Each tablet contains: .. 50 mg\* Carbidopa. See accompanying circula (Anhydrous equivalent) Tablets should be swallowed without Levodopa ... chewing or crushing. Dispense in a tightly closed container. Manufactured by: MERCK & CO., INC. Whitehouse Station, NJ 08889, USA Avoid temperatures above 30°C (86°F). Store in a tightly closed container. This is a bulk package and not intended Marketed by:
Bristol-Myers Squibb Company
Princeton, NJ 08543 USA for dispensing. Rx only SINEMET is a registered trademark of MERCK & CO., INC. Lot

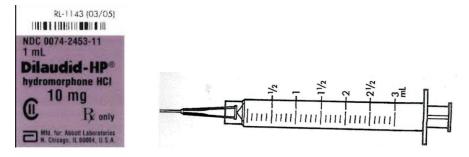
The route of administration for this medication would be\_\_\_\_\_.

This Medication contains \_\_\_\_\_mg of Carbidopa and \_\_\_\_ mg of Levodopa. The total amount in the container is \_\_\_\_\_ tab.

18. Order: Biaxin 0.5 g p.o. q12h

Available: Tablets labeled 250 mg. Calculate the amount of medication to be administered.

19. Order: Dilaudid HP 4 mg subcut q4h p.r.n. for pain. Available:

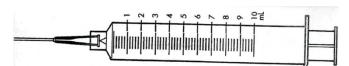


Calculate the dosage to be administered and indicate it on the syringe.

20. Order: Betamethasone Sodium Phosphate and Betamethasone Acetate 25 mg IM q12h Available:



Calculate the dosage to be administered and indicate it on the syringe.



21. Order: Omnicef 300 mg p.o. q12h. Available:



- a) How much diluent must be added to prepare the solution?
- b) What diluent is recommended for reconstitution?\_\_\_\_\_

c) What is the dosage strength of the reconstituted solution?

d) How many milliliters will you administer?\_\_\_\_\_

22. Order: Penicillin G potassium 300,000 units IM q4h Available:

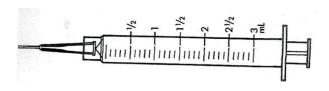


a) Which dosage strength would be best to choose?

b) How many milliliters of diluent would you add to make the dosage strength?\_\_\_\_\_

c) How many milliliters will you administer?\_\_\_\_\_

d) Shade the dosage calculated on the syringe provided



23. Critical Thinking *Scenario:* Order: Diflucan 150 mg p.o. daily. The pharmacy sends two 100-mg unscored tabs.

a) What action should you take to administer the dosage ordered?\_\_\_\_\_

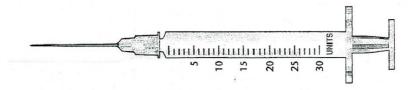
b) What is the rationale for your action?

- 24. Critical Thinking *Scenario*. A client is to receive Humulin R U-100 15 units subcut and Himulin N U-100 21 units subcut before breakfast. In drawing up the insulins in the same syringe, the nurse used the following technique:
  - a) Injected 15 units of air into the regular vial.
  - b) Injected 21 units of air in the NPH vial.
  - c) Withdrew 21 units of NPH insulin, then the 15 units of regular insulin.

Questions:

) what is the (	error in the t	ecnnique of	arawing up	two insulin	S!	
) What is the j	potential out	come from	the techniq	ue used?		

- 25. Shade the dosage of insulin on the syringe provided.
- a) Order: Humolog Insulin U-100 7 units subcut stat.



b) Order: Novolin R U-100 26 units subcut and Humulin N U-100 43 units subcut every day at 8:00 am.

