

HOLY FAMILY HOSPITAL

COMPUTATIONAL PHARMACOLOGY

NAME: _____

GRADE _____

DATE: _____

A. CALCULATIONS

Please calculate correct medication dosages of the following problems. **You must show all of your work to get full credit for a correct answer.** You may use a calculator if you wish but you must still show how you derived your answer. Each correct answer is worth 4 points.

1. ORDERED: Rocephin 800mg I.M.
ON HAND: A multidose vial reads: Add 7.0ml sterile water for injection. Each 1.0ml contains 200mg.

ADMINISTER: _____ml

2. ORDERED: Lasix 100mg po
ON HAND: Lasix 40mg per tablet

ADMINISTER: _____tab(s)

3. ORDERED: Heparin 5,000 units s.c.
ON HAND: Heparin 20,000 units per ml

ADMINISTER: _____ml

4. ORDERED: Digoxin 0.25mg po
ON HAND: Digoxin 0.5mg per tablet

ADMINISTER: _____tab(s)

5. ORDERED: Procaine Penicillin 600,000 units I.M.
ON HAND: Procaine Penicillin multidose vial which reads: 150,000 units per ml

ADMINISTER: _____ml

6. ORDERED: Aldomet 250mg po
ON HAND: Aldomet 0.5gm per tablet

ADMINISTER: _____tab(s)

7. ORDERED: Versed 2.5mg I.V.
ON HAND: Versed 5mg/ml vial

ADMINISTER: _____ml

8. ORDERED: Omnipen 500mg po
ON HAND: Omnipen powder for oral suspension 500mg/5ml

ADMINISTER: _____ml

9. ORDERED: Penicillin G Potassium 500,000 units I.V.
ON HAND: Penicillin G Potassium 400,000 units/5ml

ADMINISTER: _____ml

10. ORDERED: Morphine 6mg I.M. q 4 hrs. prn pain
ON HAND: Morphine 10mg/2ml

ADMINISTER: _____ml

11. ORDERED: Tylenol Elixir 650mg po
ON HAND: Tylenol Elixir 325mg/5ml

ADMINISTER: _____ml

12. ORDERED: Cipro 500mg po
ON HAND: Cipro 250mg po tab

ADMINISTER: _____tab(s)

13. ORDERED: Dynapen (dicloxacillin sodium) Suspension 125mg po q6h
ON HAND: Dynapen Suspension 62.5mg/5ml

ADMINISTER: _____ml

B. IV DRIP CALCULATIONS:

14. ORDERED: D₅ 1/2 NS 3000cc over the next 24 hours
ON HAND: Administration set: 15 gtts/cc

DRIP RATE: _____gtts/min

15. ORDERED: Packed red blood cells (250ml) to run over 3 hours
ON HAND: Administration set: 10gtts/cc

ADMINISTER: _____ml/hr at

_____gtts/min

16. ORDERED: Ringer's Lactate 250ml to infuse over 4 hours

ON HAND: Administration set: 60gtts/cc

ADMINISTER: _____ml/hr at

_____gtts/min

17. ORDERED: Ancef 50ml IV to infuse over 30 minutes

ON HAND: Administration set: 15 gtts/cc

ADMINISTER: _____gtts/min

C. CONVERSIONS

Fill in the following blanks with the correct equivalent. You may use a calculator if you wish. You must show all of your work on this sheet in order to get full credit for a correct answer.

18. 2 Gm = _____ mg

21. 4.5 liters = _____ ml

19. 500 ml = _____ liter

22. 75 mg = _____ Gm

20. 350 mg = _____ mcg

23. 75 mcg = _____ mg

24. A client who weighs 55 kg is to receive 25 units/kg/hr of a medication as a continuous infusion. The intravenous solution contains 50,000 units of the drug per 500cc. The infusion pump should be set to deliver approximately how many mls per hour?

ANSWER: _____

Remember to show your work.