

Name: \_\_\_\_\_

UFID#: \_\_\_\_\_

**PHA 5127**

**Final Exam**

**Fall 2009**

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

---

Name

**Please transfer the answers onto the bubble sheet. The question number refers to the number on the bubble sheet. Please fill in all the information necessary to identify yourself.**

**The proctors will also collect your exams.**

**Good LUCK.**

TOTAL \_\_\_\_\_120\_/pts

Name: \_\_\_\_\_

UFID#: \_\_\_\_\_

**Question set I** (10 pts): Select whether the following statements are True (A) or False (B) concerning a drug that is absorbed by a first order process and eliminated by a first order process

- 1:    T    F        The faster the absorption, the shorter will be  $t_{max}$
- 2:    T    F        The faster the absorption, the lower will be  $C_{max}$ .
- 3:    T    F        The smaller  $k_a$ , the smaller the fluctuation between peak and trough concentration when given twice daily.
- 4:    T    F        Assume that all the drug will dissolve in time to enter the portal vein. For a high extraction drug, an increase in  $k_a$  tends to decrease the oral bioavailability.
- 5:    T    F        Assume that all the drug will dissolve in time to enter the portal vein. For a low extraction drug, the oral bioavailability will increase with increasing  $k_a$ .

Name: \_\_\_\_\_

UFID#: \_\_\_\_\_

**Question set II (6 pts):** Select from the following statements whether the statements are True (A) or False (B).

- 6: T F Assume steady state has been reached after having started a constant rate infusion. At steady state,  $k_0$  will equal clearance.
- 7: T F The time to reach steady state after an constant rate infusion is affected by the clearance and volume of distribution of the drug.
- 8: T F Drugs showing a high degree of accumulation after multiple iv bolus injections will need a long time to reach steady state when the drug is given as a constant rate infusion (no loading dose is given)

**Question set III (4 pts):**

Select from the following statements whether the statements are True (A) or False (B).

Assume a multiple dosing situation.

- 9: T F For a lipophilic drug whose clearance is constant under the given conditions, the following statement can be made: The stronger the tissue binding the more pronounced the degree of accumulation.
- 10: T F For a lipophilic drug whose clearance is constant under the given conditions, the following statement can be made: The stronger the tissue binding the more pronounced the fluctuation between peak and trough concentration.