

Name: _____

UFID #: _____

PHA 5127

Second Exam

Fall 2008

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

Name

Put all answers on the bubble sheet

TOTAL _____ / 170 pts

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Question Set I (True or False)

(25 points)

True (A) or False (B). On the bubble sheet mark *A* for true or *B* for false

Mark whether the following statements is true (A) or false (B). Drug A is cleared only by hepatic metabolism and has an intrinsic clearance of 0.8 L/h

- 1: T F The oral bioavailability of this drug will be larger than 80%.
- 2: T F Plasma protein binding will affect the oral bioavailability of this drug.
- 3: T F The hepatic clearance of this drug is 1333 L/min.
- 4: T F Plasma protein binding will affect the hepatic clearance of this drug.
- 5: T F Drug B, known to induce enzymes, also responsible for metabolism of Drug A, will significantly affect the clearance of Drug A.

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Question Set II

(25 points)

True (A) or False (B). On the bubble sheet mark *A* for true or *B* for false

Imagine a lipophilic unionized drug A with a volume of distribution of 108 L. When given by an iv bolus injection, the peak concentration of 0.18 $\mu\text{g/ml}$ is observed (C_o). When given orally, the oral bioavailability is 1.9 %. Plasma Protein Binding is 50% ($f_u=0.5$).

Peak [$\mu\text{g/ml}$]	0.18
V [L]	108
F (%)	1.9
f_u	0.5

Mark whether the following statements are true (A) or false (B).

- 6: T F The drug is highly metabolized in the liver.
- 7: T F Plasma protein binding will affect the oral bioavailability of this drug.
- 8: T F The hepatic clearance of this drug will be smaller than the Cl_{ren} .
- 9: T F Plasma protein binding will affect the hepatic clearance of this drug.
- 10: T F Drug B, known to induce enzymes that are also responsible for metabolism of Drug A, will significantly affect the clearance of Drug A.