

Name: _____

UFID #: _____

PHA 5127

First Exam

Fall 2005

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

Name

Put all answers on the bubble sheet

TOTAL _____/160 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

For a low extraction drug

- 1: T F Hepatic clearance will be larger than that of a high extraction drug
- 2: T F Hepatic clearance will depend on liver blood flow
- 3: T F Hepatic clearance will depend on tissue protein binding
- 4: T F Oral bioavailability will be below 80%
- 5: T F k_e will not be affected by drugs that induce synthesis of the enzyme responsible for the metabolism of the low extraction drug

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Question Set II

(15 points)

Imagine a low extraction drug that is only eliminated via hepatic metabolism. Two patients have been injected with the same dose of this drug. They show the following pharmacokinetic properties

Peak [ug/ml]	1.1	0.4
Ke [1/h]	0.6	0.4
V [L]	38	108
CL [L/h]	22.5	45.0
t1/2 [h]	1.17	1.66

- 6: A list of physiological parameter is shown below. Identify **the one** physiological parameter that would explain **all differences** in above pharmacokinetic parameters

A.	<i>Parameter-</i> GFR
B.	f_u
C.	f_{ut}
D.	Q_{hep}
E	Cl_{int}