

课程 **山东医科大学试卷** 成绩

学号 \_\_\_\_\_ 年 级 \_\_\_\_\_ 班 次 \_\_\_\_\_ 姓 名 \_\_\_\_\_

PART I CHOICE QUESTION ( 70 )

TYPE A

- A drug is eliminated with first-order kinetics, its  $t_{1/2}=3h$ , if the drug concentration in plasma is  $75mg/L$  at 8 Am, how much is the drug concentration at 8 Pm on the same day

A.  $37.5mg/L$       B.  $18.75mg/L$   
 C.  $9.38mg/L$       D.  $4.69mg/L$   
 E.  $2.34mg/L$
- A drug with  $t_{1/2}=3h$  is given, the  $C_{ss}$  of the plasma concentration can be expected within

A. 7h    B. 9h    C. 14h  
 D. 20h    E. 30h
- The  $E_{max}$  that a drug can be achieved is a measurement of

A. potency      B. efficacy  
 C. affinity      D.  $V_d$   
 E. bioavailability
- The drug able to penetrate blood-brain barrier is a compound with

A. high polarity  
 B. high lipid solubility  
 C. high molecular weight  
 D. low molecular weight
- After repeated administration of phenobarbital sodium, the patients complain the drug is less useful, this phenomenon is called tolerance which is caused by

A. lowering of bioavailability  
 B. increase the binding of plasma protein  
 C. stimulation of excretion  
 D. the drug is a microsomal enzyme inducer  
 E. the drug is a fake
- A weak acidic drug with  $pK_a=5.4$ , if the stomach juice  $pH=1.4$ , plasma  $pH=7.4$ , when the distribution balances, what is the drug concentration ratio between stomach juice and blood plasma

A. 50    B. 100    C. 1000    D. 10000  
 E. 0.0001
- Aspirin is a weak acid with  $pK_a=3.5$ , what percentage of lipid-soluble form will be in the stomach juice with  $pH=1.5$

A. 1%    B. 10%    C. 50%    D. 90%    E. 99%
- $PD_2$  is

A. therapeutic index  
 B. antagonist index  
 C. affinity index  
 D. dissociation constant  
 E. elimination rate constant
- Drug A and B have the same mechanism of action, Drug A in a dose of 10mg produces the same effect as drug B in a dose of 100mg

A. drug B is less effective than drug A  
 B. drug A is 10 times more potent than drug B  
 C. toxicity of drug A is less than that of drug B  
 D. drug A is a better drug  
 E. drug A has a shorter duration
- Which of the following statements concerning drug action is true?

A. drug can't act unless it is released from a receptor  
 B. drug receptor plays a role in the bioavail-