Which of the following volumes of distribution (in L) in a 70 KG adult indicate drug distribution in ECF?

A. 4
B. 10
C. 40
D. 35
E. 100

Drug X has half-life of 6 h; its VD is 24 L in an adult. Its total body CL (in L/h) is :

A. 2 (B) 3 C. 4

D. 5 E. 6

Factors that can decrease rate of drug absorption after SC or IM injection include the following except :

A. Shock
B. Applying ice to injection site
C. Drug in oil
D. Binding of drug to muscle
(E.) Hyaluronidase injection at site

. **The following can be indications for rectal suppositories except :**

A. Infants
B. Vomiting
C. Emergency
D. Coma
E. Elderly

Drug X has liver extraction ratio of 0.7 . The % absorbed by small intestine is 70%, If 500 mg dose of drug X is given orally, then the amount (in mg) that would reach systemic blood is about :

A. 300 B. 250 C. 200
D. 150 E) 100

Simple diffusion of drugs differ from fascilitated diffusion by the following except :

A. Rate of simple lipid diffusion is directly related to lipid solubility of drug molecules
B. Simple lipid diffusion can transport water soluble molecules
C. It is not subjected to competition
D. It has a large capacity
E. It can not transport sugars like glucose and fructose

Plasma half-life of a drug : Which one of the following is false?

A. is inversely related to total body clearance of drug

B. can be estimated graphically from drug plasma C-T curve

C. is usually equal to biological half-life of drug in body

(D) is prolonged with drugs stored in body fat

E. is prolonged when liver or renal elimination of drug is impaired

The following decrease drug absorption from intestine except :

A. Destruction of drug by gastric acid or pepsin
B. Osmotic laxative
C. Food
D. Large particle size of drug
E. Enhanced gastric emptying

. **Renal excretion of which of the following is most enhanced by alkaline urine pH 8 ?**

A. Weak organic base with pKa of 6
B. Weak organic base with pKa of 5
C. Weak organic acid with pKa of 4
Ⓓ Weak organic acid with pKa of 3
E. Weak organic base with pKa of 4

sma concentration-time curve is linear

lasma concentration is high, the more is its rat

capacity enough to deal with high drug conce

half-life of drug remains constant even at larg

on constant Ke of drug is inversely related to

st be used by IM inje

r this drug is high

g are used in liver disease

. **Drug X is a weak base (pKa = 6.4. The concentration of its charged form in plasma (pH=7.4) is 2 uM. The ratio of concentration of its charged form to that of uncharged form in urine (pH= 5.4) is :**

A. 2 B. 5 (C) 10

D. 15 E. 20

The following can increase renal excretion of drugs except :

A. Mannitol

B. Low % binding of drug molecules to albumin in plasma

C. Probenecid

D. Increase in renal blood flow

E. Changing urine pH

The following slow liver microsomal metabolism of drugs except :

A. Liver disease
B. Cabbage
C. Grapefruit
D. Poor nutrition
E. Ciprofloxacin

The following occur in zero-order kinetics in drug elimination except :

A. Short half-life
B. Toxic plasma drug level
C. Limited capacity for elimination
D. Constant amount of drug is removed from plasma per unit time
E. It is saturation kinetics

The following biochemical reactions occur in cytosol of liver cells except :

A. Ester hydrolysis
B. Alcohol oxidation by alcohol dehydrogenase
C. Amino acid conjugation
D. Hydroxylation
E. Glutathione conjugation