1. The initial plasma concentration of a drug was found to be 2 mg/L following an intravenous dose of 300 mg. Which of the following is its apparent volume of distribution?

A. 15 L
B. 150 L
C. 300 L
D. 500 L
E. 1000 L

2. If a drug has a clearance of 10 L/hr and a volume of distribution is 70 L, then t½ of elimination of the drug is around:

A. 80 hrs
B. 20 hrs
C. 10 hrs
D. 5 hrs
E. 2 hrs

3. A drug has a volume of distribution of 1500 L and a half-life of elimination of around 23 hours. Its clearance will be about:

A. 5 L/hour
B. 15 L/hour
C. 30 L/hour
D. 45 L/hour
E. 90 L/hour

4. If the desired steady-state plasma concentration of the drug is 15 mg/L, and its clearance is 10 L/hour, the maintenance dose of the drug would be:

A. 10 mg every hour
B. 25 mg every hour
C. 75 mg every hour
D. 150 mg every hour
E. 300 mg every hour

5. A drug has a therapeutic plasma concentration of 15 mg/L and a volume of distribution of 200 L. The loading dose of this drug should be:

A. 250 mg
B. 500 mg
C. 1000 mg
D. 2000 mg
E. 3000 mg