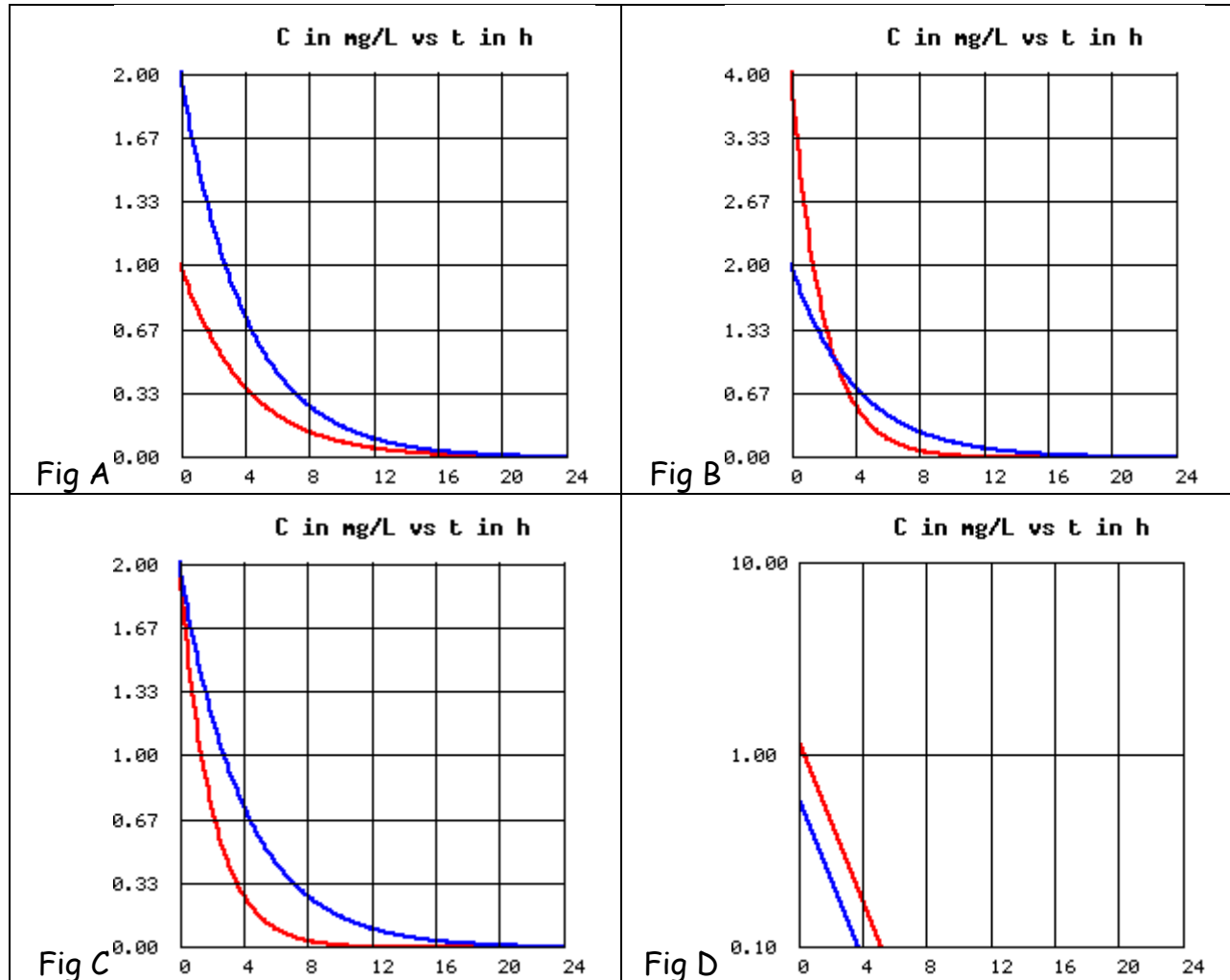1) Identify the Pharmacokinetic metrics: **Dose, Volume of Distribution** or the **Clearance (only pick one per scenario)** , whose changes would determine the differences observed in the following concentration time profiles. (eg: The structure of the answer would look like – The changes in the profiles of Fig A would be because of _____ parameter)

Fig A

Fig B

Fig C

Fig D

2. List the assumptions that apply for a one compartment body model. (IV bolus administration).

True or False:

1) For a drug characterized by a one compartment body model and administered as an IV bolus the expression AUC_{0-inf} = Co/Ke can be used to calculate the $AUC_{0-inf.}$ (T/F)

2) CL_{tot} = CL_{bil} + CL_{ren} + CL_{met} is always true. (T/F)

3) In the equation $C = \left(\frac{Dose}{Vd}\right) * e^{\wedge}(-ke * t)$, the expression $e^{\wedge}(-ke * t)$ has a value between o and 1. (T/F)