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)
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 $AUC_{0\text{-}inf} = \frac{Co}{Ke}$ can be used to calculate the $AUC_{0\text{-}inf}$. (T/F)

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

3) In the equation $C = \left(\frac{Dose}{Vd}\right) \cdot e^{\left(-ke \cdot t\right)}$, the expression $e^{\left(-ke \cdot t\right)}$ has a value between 0 and 1. (T/F)