

Question 1

Amphipathic → molecule has both a polar and non-polar end.

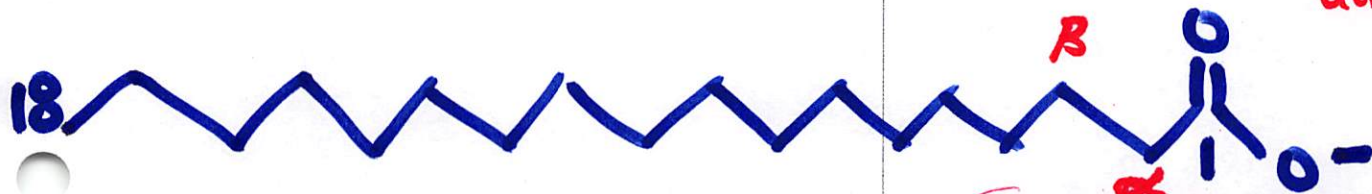
(A) At pH = 2 C18:0



$pH < pKa$

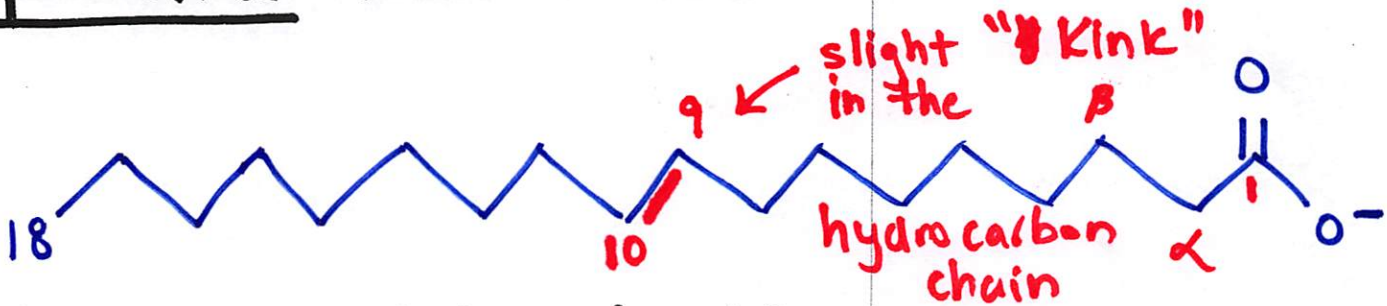
pKa of Carboxylic acid 4.5-5

(B) At pH = 7.4 C18:0



$pH > pKa$

question 2 → C18:1 trans-Δ9



question 3 → C18:1 cis-Δ9

