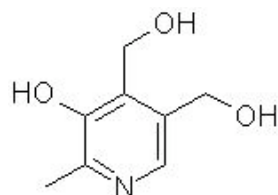


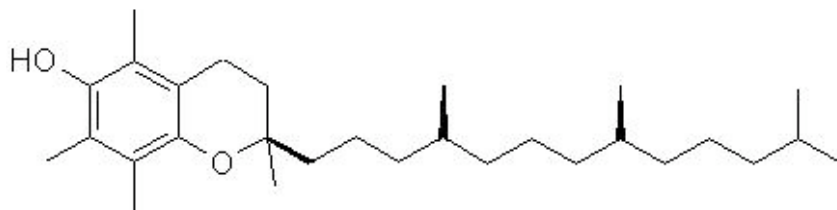
Bio 111 Answer to iClicker Question 12A

The structure of vitamin B6 is:



it has many -OH groups and an N: to make hydrogen bonds
it is likely to be water-soluble

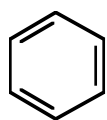
The structure of vitamin E is:



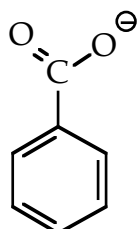
it has many CH₂ groups and only 2 oxygens
it is likely that it is NOT water soluble.

Therefore, (B) is the only correct answer.

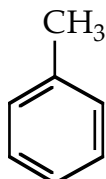
Bio 111 Answer to iClicker Question 12B



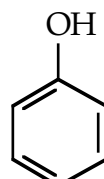
(A)



(B)



(C)



(D)

(A) is the simplest.

Compared to (A):

(B) has more 'philic stuff (-COO⁻) & it is charged - extra 'philic

(C) has more 'phobic stuff (the -CH₃ group)

(D) has more 'philic stuff (-OH) - not as 'philic as a charged group, though.

Therefore, the one with the highest 'philicity is (B) - it is the most hydrophilic.