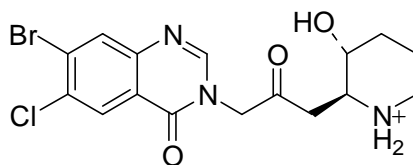
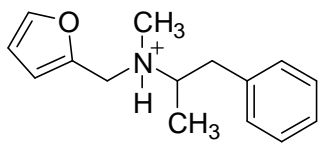


1. Draw each of the following compounds as they would occur in solution at pH 7.



2. What types of non-covalent interactions can drug molecules have with DNA?

Either: intercalation and minor groove binding

OR: electrostatic, pi stacking, hydrogen bonding and van der waals

3. Describe the effect of an antagonist on the conformational equilibrium between active and inactive conformations of a G protein-coupled receptor.

Antagonists have no effect on GPCR equilibrium. This is reflected in their lack of effect on the basal activity level.