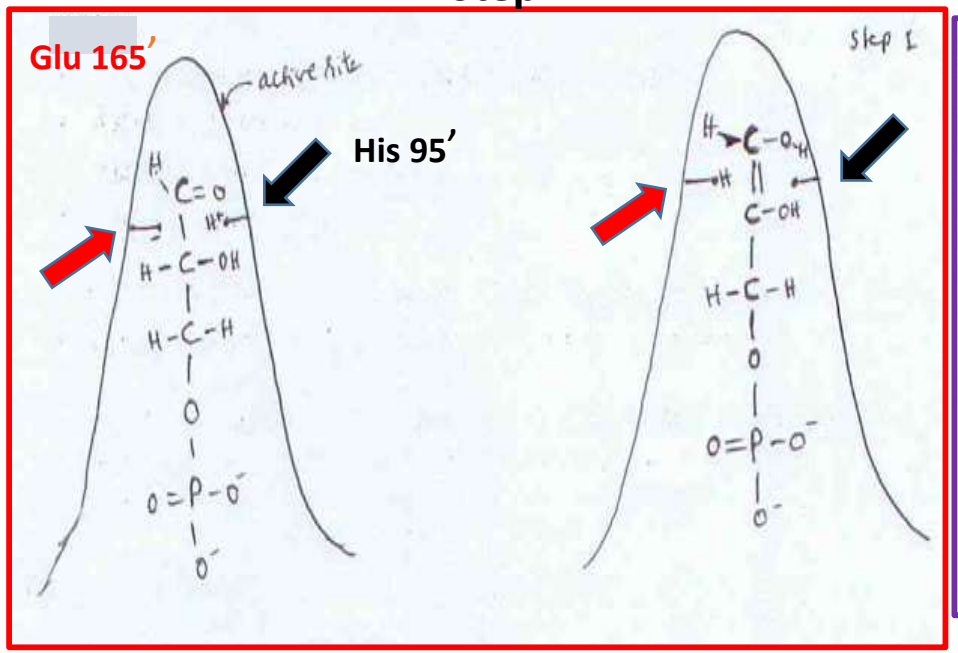
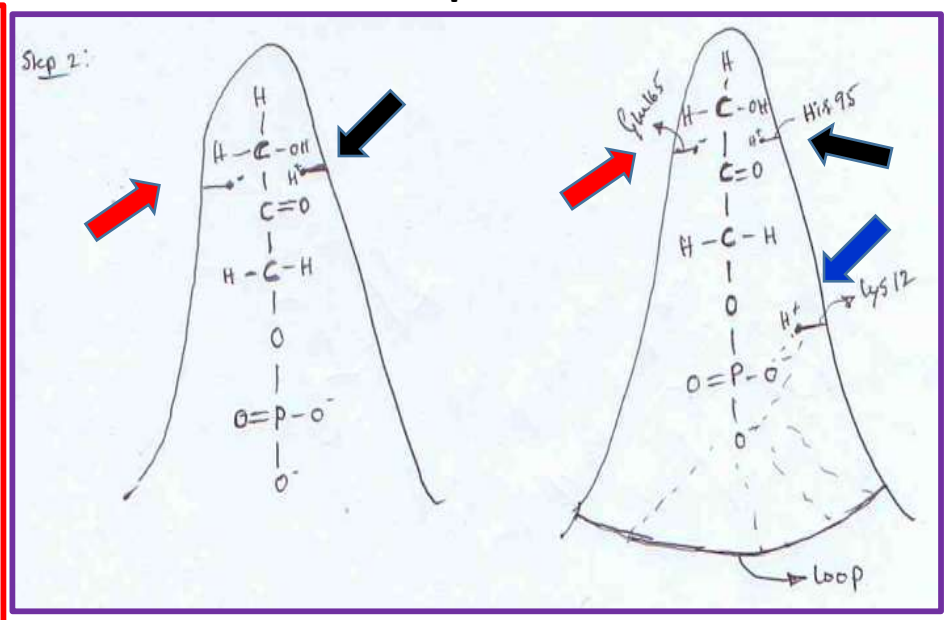
Step 1



Step 2



His95-95th amino acid is Histidine
Positively charged a.a **(Indicated by BLACK arrow)**
Appropriately present at the position to give
H+ ion to the 1st carbon of G3P
(His95 gives H^+ to 1st carbon)

Glu165-Glutamic acid present at 165th position
Negatively charged **(Indicated by RED arrow)**
Appropriately present to take H+ from 2nd Carbon of
G3P (Glu165 takes H^+ from 2nd carbon)
Resulting molecule is cis-enediol Highly unstable

H^+ from 2nd carbon is taken by His95 to again become +vely charged **(His95 takes H^+ from 2nd carbon)**

H+ ion given by the glutamic acid to the 1st carbon atom of the molecule
(Glu165 gives H^+ to 1st carbon)
Resulting molecule is DHAP

To stabilize the phosphate group (which is negatively charged), Lysine (positively charged) is present at the 12th amino acid