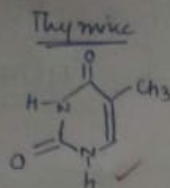
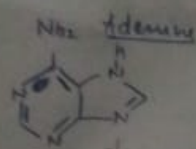


5. Draw the structures of adenine and thymine and show the Watson-Crick base pairing via hydrogen bonding



Adenine and Thymine
forms single bond
A/T to Watson Crick
model.

0.5

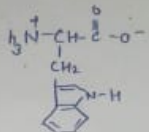
6. The tert-butyloxycarbonyl group (Boc group) is used to protect the amine in peptide synthesis. The Boc protection is achieved by reacting the amine with Boc anhydride (di-tert-butyl decarbonate) in the presence of a base. Draw the structure of Boc anhydride.

0 X

7. Draw the chemical structure of tryptophan

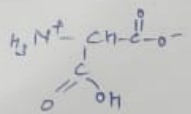
2 ✓

Tryptophan (W)



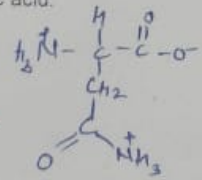
8. Draw the chemical structure of serine.

0 X



9. Draw the chemical structure of aspartic acid.

0 X



10. Dopamine is a neurotransmitter and is produced by decarboxylation of L-DOPA (L-3,4-dihydroxyphenylalanine) by the enzyme DOPA decarboxylase. Draw the structure of both dopamine and the precursor of L-DOPA.

0