${f Q.14}$ Given below are two statements : one is labelled as Assertion A and the other is labelled as Reason R.

Assertion A : Dipole-dipole interactions are the only non-covalent interactions, resulting in hydrogen bond formation.

 $\label{eq:ReasonR} Reason\,R: Fluorine\ is\ the\ most\ electronegative\ element\ and\ hydrogen\ bonds\ in\ HF$ are symmetrical.

In the light of the above statements, choose the most appropriate answer from the options given below:

A is false but R is true Both A and R are true but R is NOT the correct explanation of A
B A is true but R is false
A Both A and R are true and R is the correct explanation of A

Ans 14. Dipole - Dipole are not only the interaction responsible for hydrogen bond

formation. Ion-dipole can also be responsible for hydrogen bond formation. F is most electronegative element and anhydrous HF in solid phase has symmetrical hydrogen bonding.