

SUBJECT - CHEMISTRY
CLASS - B.Sc(Hons) PART-II
PAPER - IV

TOPIC - Difference between Tautomers and Resonating structures:

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Q How do tautomers differ from resonating structures?

Ans Difference between Tautomers and Resonating structures:

Tautomers	Resonating Structures
1 They are real molecules i.e. Capable of independent existence and hence Separable.	They are hypothetical i.e, do not exist and as such, they are non-separable.
2 Differ in chemical properties	Identical chemical properties.
3 Differ in position of nuclei	Same position of nuclei
4 Sign between two tautomers, \rightleftharpoons	Sign between resonating structures \longleftrightarrow
5 All the nuclei of the molecule must lie in a plane	All the nuclei must lie in a plane or very nearly so.
6 Tautomers are in dynamic equilibrium	They do not exist and hence the existence of dynamic equilibrium does not at all arise.
7 It does not affect the stability of the molecule.	Resonance lowers the internal energy of the molecule and hence raises its stability.