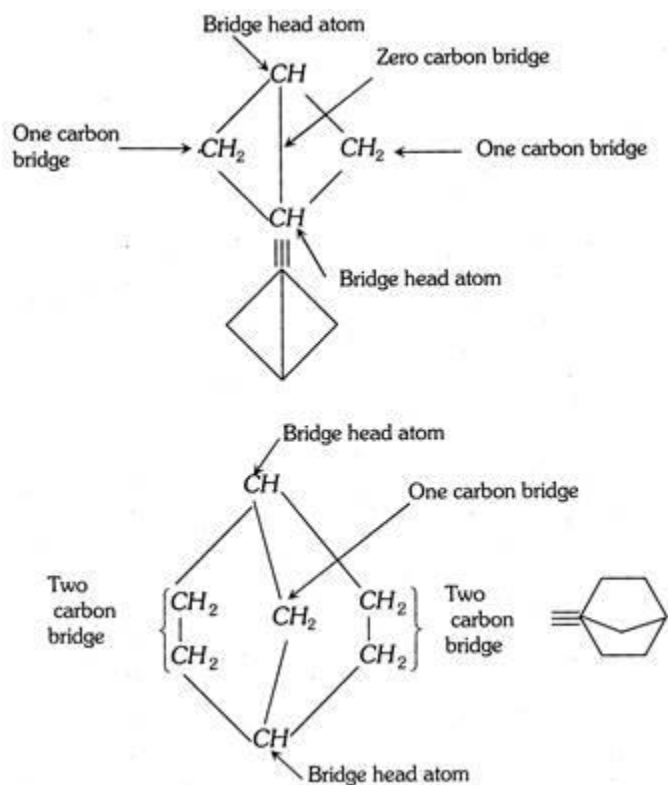
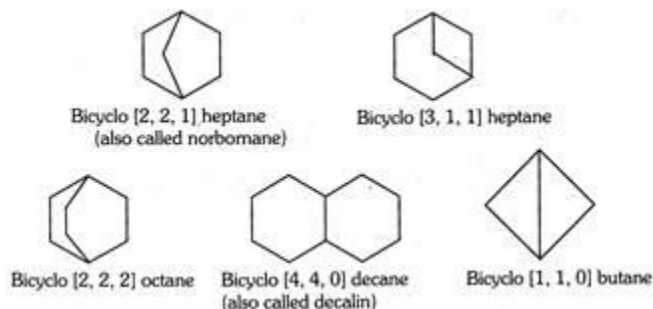


Nomenclature of Bicyclic Compounds:

Many hydrocarbons and their derivatives contain two fused or bridged rings. The carbon atoms common to both rings are called bridge head atoms and each bond or chain of carbon atoms connecting both the bridge head atoms is called as bridge. The bridge may contain 0, 1, 2.... etc. carbon atoms. For example,

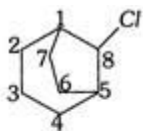


These bicyclic compounds are named by attaching the prefix 'bicyclo' to the name of the hydrocarbon having the same total number of carbon atoms as in the two rings. The number of carbon atoms in each of the three bridges connecting the two bridge head carbon atoms is indicated by arabic numerals, i.e., 0, 1, 2.....etc. These arabic numerals are arranged in descending order; separated from one another by full stops and then enclosed in square brackets. The complete IUPAC name of the hydrocarbon is then obtained by placing these square brackets containing the arabic numerals between the prefix bicyclo and the name of alkane. For example,



If a substituent is present, the bicyclic ring system is numbered. The numbering begins with one of the bridge head atoms, proceeds first along the longest bridge to the second bridge head atom,

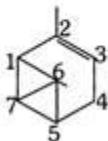
continues along the next longest bridge to the first bridge head atom and is finally completed along the shortest path. For example,



8-Chlorobicyclo [3, 2, 1] octane



8-Methylbicyclo [4, 3, 0] nonane



2, 6, 6-Trimethylbicyclo [3, 1, 1] hept-2-ene