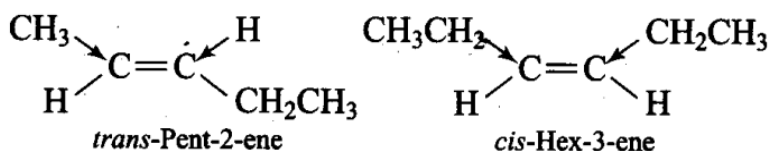


Q19. The molecules having dipole moment are _____ .

- (a) 2,2-Dimethylpropane
- (b) trans-Pent-2-ene
- (c) cw-Hex-3-ene
- (d) 2,2,3,3-Tetramethylbutane

Sol. (b, c)



Since, the +I effect of CH_2CH_3 group is higher than that of CH_3 group, therefore, the dipole moments of C- CH_3 and C- CH_2CH_3 bonds are unequal. Although these two dipoles oppose each other, yet they do not exactly cancel out each other and hence trans-2-pentene has small but finite dipole moment.

In cis-hex-3-ene, although the dipole moments of the two C - CH_2CH_3 bond are equal, but they are inclined to each other at an angle of 60° and hence have a finite dipole moment