

Question (F) : Hyperconjugation

In hyperconjugation there is overlap between :

- (A) p - and π -orbitals (B) 2 π - orbitals (C) d -and- π -orbital (D) σ -and p - orbitals

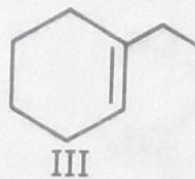
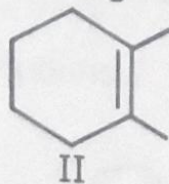
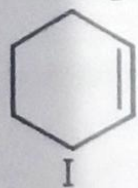
Which of the following cannot exhibit hyperconjugation -

- (A) $\text{CH}_3\dot{\text{C}}\text{H}_2$ (B) $\begin{matrix} \text{CH}_3 \\ \text{CH}_3 \end{matrix} > \overset{+}{\text{C}}\text{H}$ (C) $\text{CH}_3\text{CH}=\text{CH}_2$ (D) $(\text{CH}_3)_3\text{C}-\overset{+}{\text{C}}\text{H}_2$

Which of the following alkenes will show maximum number of hyperconjugation forms ?

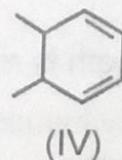
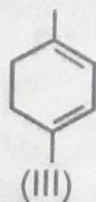
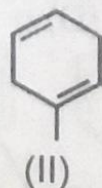
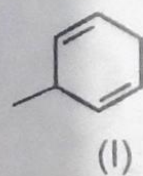
- (A) $\text{CH}_2=\text{CH}_2$ (B) $\text{CH}_3-\text{CH}=\text{CH}_2$ (C) $\text{CH}_3-\text{CH}_2-\text{CH}=\text{CH}_2$ (D) $\begin{matrix} \text{CH}_3 \\ | \\ \text{CH}_3-\text{CH}-\text{CH}=\text{CH}_2 \end{matrix}$

Arrange the stability of following



- (A) I < II < III (B) II < I < III (C) I < III < II (D) II < III < I

The order of heat of hydrogenation in following compound is :



- (A) I < II < IV < III (B) III < IV < II < I (C) II < III < I < IV (D) II < IV < I < III

$\text{H}_3\text{C}-\overset{\oplus}{\text{C}}\text{H}-\text{CH}=\text{CH}_2$ does not involve :

- (A) σ - p overlap (B) σ - σ overlap (C) $p\pi$ - $p\pi$ overlap (D) $p\pi$ - $d\pi$ overlap

Which one of the following has inductive, mesomeric and hyperconjugation effect ?

- (A) CH_3Cl (B) $\text{CH}_3-\text{CH}=\text{CH}_2$
 (C) $\text{CH}_3\text{CH}=\text{CH}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$ (D) $\text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$