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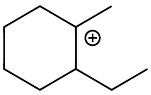
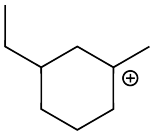
JEE MAIN ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES AND TECHNIQUES — HYPERCONJUGATION — PYQS

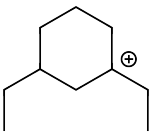
Max. Marks: 12 **Questions:** 3

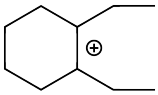
Section A (MCQ) — 3 questions

Q.1 The cyclic cations having the same number of hyperconjugation are :

A. 

B. 

C. 

D. 

Choose the **correct** answer from the options given below :

[JEE Main 2026 (Online) 28th January Evening Shift]

(1) B and C Only (2) A and B Only

(3) A and C Only (4) A, C and D Only

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Q.2 Given below are two statements :

Statement-I: $(CH_3)_3\overset{\oplus}{C}$ is more stable than $\overset{\oplus}{C}H_3$ as nine hyperconjugation interactions are possible in $(CH_3)_3\overset{\oplus}{C}$.

Statement-II: $\overset{\oplus}{C}H_3$ is less stable than $(CH_3)_3\overset{\oplus}{C}$ as only three hyperconjugation interactions are possible in $\overset{\oplus}{C}H_3$.

In the light of the above statements, choose the **correct** answer from the options given below

[JEE Main 2026 (Online) 23rd January Evening Shift]

(1) Statement-I is false but Statement-II is true

(2) Statement-I is true but Statement-II is false

(3) Both Statement-I and Statement-II are true

(4) Both Statement-I and Statement-II are false

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Q.3 Given below are two statements :

Statement-I: Hyperconjugation is not a permanent effect.

Statement-II: In general, greater the number of alkyl groups attached to a positively charged carbon, greater is the hyperconjugation interaction and stabilization of the cation.

In the light of the above statements, choose the correct answer from the options given below

[JEE Main 2025 (Online) 3rd April Evening Shift]

(1) Statement-I is false but Statement-II is true

(2) Statement-I is true but Statement-II is false

(3) Both Statement-I and Statement-II are false

(4) Both Statement-I and Statement-II are true

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ANSWER KEY

Ques.	1	2	3								
Ans.	3	2	1								