

## JEE MAIN ISOMERISM — PHYSICAL PROPERTIES OF GEOMETRICAL ISOMERS — PYQS

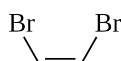
Max. Marks: 16

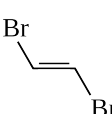
Questions: 4

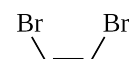
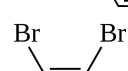
### Section A (MCQ) — 4 questions

**Q.1** Given below are two statements :

**Statement-I:**  is more polar than



**Statement-II:** Boiling point of  is lower

than  but it is more polar than .

In the light of the above statements, choose the most appropriate answer from the options given below :

[JEE Main 2025 (Online) 7th April Evening Shift]

- (1) Both Statement-I and Statement-II are correct
- (2) Statement-I is incorrect but Statement-II is correct
- (3) Both Statement-I and Statement-II are incorrect
- (4) Statement-I is correct but Statement-II is incorrect

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**Q.2** The incorrect statements regarding geometrical isomerism are :

- A. Propene shows geometrical isomerism.
- B. Trans isomer has identical atoms/groups on the opposite sides of the double bond.
- C. Cis-but-2-ene has higher dipole moment than trans-but-2-ene.
- D. 2-methylbut-2-ene shows two geometrical isomers.
- E. Trans-isomer has lower melting point than cis isomer.

Choose the correct answer from the options given below :

[JEE Main 2025 (Online) 22nd January Morning Shift]

- (1) A and E Only
- (2) A, D and E Only
- (3) C, D and E Only
- (4) B and C Only

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**Q.3** The incorrect statement regarding the geometrical isomers of 2-butene is :

[JEE Main 2024 (Online) 6th April Evening Shift]

- (1) cis-2-butene and trans-2-butene are not interconvertible at room temperature.
- (2) trans-2-butene is more stable than cis-2-butene.
- (3) cis-2-butene has less dipole moment than trans-2-butene.
- (4) cis-2-butene and trans-2-butene are stereoisomers.

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**Q.4** Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

**Assertion (A):** Cis form of alkene is found to be more polar than the trans form.

**Reason (R):** Dipole moment of trans isomer of 2-butene is zero.

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

[JEE Main 2024 (Online) 5th April Morning Shift]

- (1) (A) is true but (R) is false
- (2) (A) is false but (R) is true
- (3) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (4) Both (A) and (R) are true but (R) is NOT the correct explanation of (A)

Scan or tap for the full solution



### ANSWER KEY

| Ques. | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |
|-------|---|---|---|---|--|--|--|--|--|--|--|
| Ans.  | 4 | 2 | 3 | 3 |  |  |  |  |  |  |  |