PAPER SOLUTION

From Meerut

JEE MAIN 2026

JAN	SHIFT
22	2nd

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JEE MAIN 2026 LIVE PAPER DISCUSSION

#Q. The correct order of electron gain enthalpy (magnitude only) for group 16 elements is:

A Te > Se > S > O

B S > Se > Te > O

C O > S > Se > Te

D S > O > Se > Te

Ans. (B)

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#Q. Correct order of ionisation enthalpy is:

A $F > Cl > Cl^- > F^-$

B $F > Cl^- > Cl > F^-$

C $Cl > F > Cl^- > F^-$

D $F > Cl > F^- > Cl^-$

Ans. (A)

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#Q. 100 g 98% by weight H_2SO_4 is mixed with 100 g 49% by weight H_2SO_4. Mole fraction of H_2SO_4 in solution is:

A 0.9

B 0.1

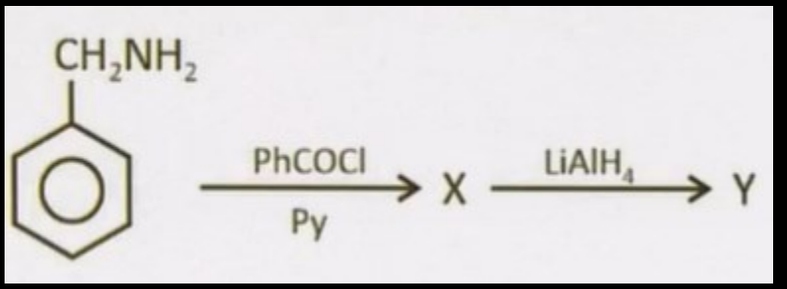
C 0.67

D 0.33

Ans. (D)

JEE MAIN 2026 LIVE PAPER DISCUSSION

#Q. Consider the following reaction.



The correct structure of Y is:

A $PhCH_2NHCOPh$

B $Ph\text{-}CH_2NHCH_2Ph$

C $PhNH_2CH_2Ph$

D $PhCH_3$

Ans. (B)

#Q. Which of the following is a mixed oxide?

(A) Fe_2O_3

(B) PbO_2

(C) Pb_3O_4

(D) BaO_2

Ans. (C)

#Q. Volume ratio of decimolar NH_4OH and decimolar HCl to give a solution of pH = 9.25 at 25°C is x : 1. Find x. pK_b of NH_4OH = 4.75

Ans. (2)

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#Q. Which of following is basic buffer?

(A) $NaOH + CH_3COONa$

(B) $NaOH + Na_2SO_4$

(C) $K_2SO_4 + H_2SO_4$

(D) $NH_4OH + NH_4Cl$

Ans. (D)

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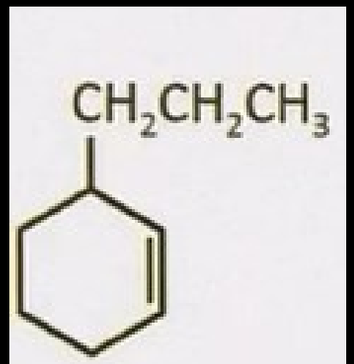
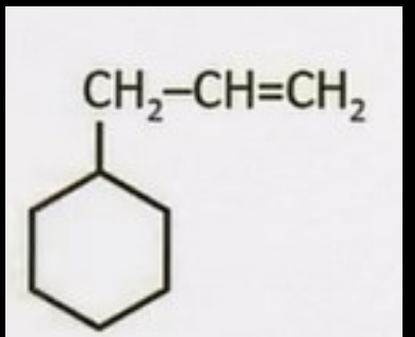
#Q. An alkene on reductive ozonolysis gives methanal as one of the products. It's structure is:

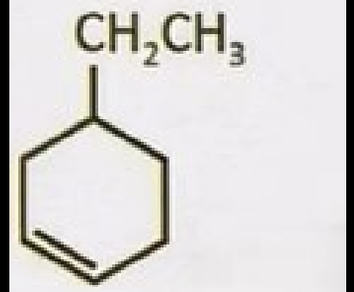
A



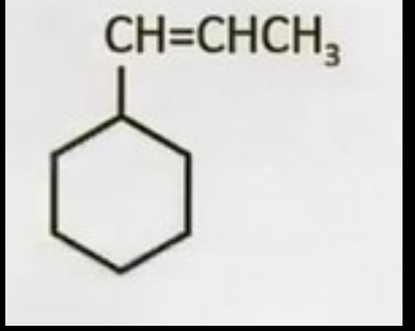
B



C



D



Ans. (B)

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#Q. Consider the following data :

$Na(s) + 1/2Cl_2(g) \rightarrow NaCl(s)$ $\quad \Delta H^o = -411\ Kj/mole^{-1}$

$Na(s) \rightarrow Na(g)$ $\quad \Delta H^o = 107\ kJ/mole$

$Cl_2(g) \rightarrow 2Cl(g)$ $\quad \Delta H^o = 242\ kJ/mole$

$Cl(g) + e^- \rightarrow Cl^-(g)$ $\quad \Delta H^o = -355\ kJ/mole$

$Na(g) \rightarrow Na^+(g) + e^-$ $\quad \Delta H^o = 502\ Kj/mole^{-1}$

Find out lattice energy of NaCl(s).

A —786 kJ $mole^{-1}$

B —628 kJ mol^{-1}

C —428 kJ $mole^{-1}$

D —393 kJ $mole^{-1}$

Ans. (A)

#Q. 5.8 g Aniline is converted into benzanilide with some reaction sequences. Calculate mass of benzanilide formed, if percentage yield of reaction is 82%.

$$Ph - COCl + PhNH_2 \xrightarrow{NaOH} \text{Benzanilide}$$

Ans. (10)

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#Q. Which of the following will behave as best reducing agent?

Given

$Al^{3+} + 3e^- \rightarrow Al$ $E^o = -1.66$ V

$Co^{3+} + e^- \rightarrow Co^{2+}$ $E^o = 1.81$ V

$Fe^{3+} + e^- \rightarrow Fe^{2+}$ $E^o = 0.77$ V

$Cd^{2+} + 2\,e^- \rightarrow Cd$ $E^o = -0.4$ V

(A) Al

(B) Co^{2+}

(C) Fe^{2+}

(D) Cd

Ans. (A)

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#Q. $Br_2CH-CH_2-CH_2-CH_3 \xrightarrow[NaNH_2]{\text{2 Equivalent}} X \xrightarrow[\text{(II) 1 Eq. } CH_3CHBrCH_3]{\text{(I) 1Eq. } NaNH_2} Y$

(A) 2-Methylhex-3-yne

(B) 2-Methylhex-2-ene

(C) 2-Pentyne

(D) 3-Methylhex-2-yne

Ans. (A)

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#Q. Given below are two statements.
Statement I : First ionisation enthalpy of Cr is greater than Mn.
Statement II : Second and third ionisation enthalpy of Cr is less than that of Mn.
In the light of above statements, choose the correct option.

A. Both statement I and statement II are correct

B. Both statement I and statement II are incorrect

C. Statement I is correct but statement II is incorrect

D. Statement I is incorrect but statement II is correct

Ans. (B)

JEE MAIN 2026 LIVE PAPER DISCUSSION

#Q. Which of the following is the correct IUPAC name of complex?
$[Ni(PPh_3)_3(H_2O)_3]Cl_2$

(A) Triaquatris(triphenylphosphine)nickel(II) chloride

(B) Tris(triphenyphosphine)triaquanickel(II) chloride

(C) Triaquatris(triphenylphosphine)nickelate(II)chloride

(D) Triaquatris(triphenylphosphine)nickel(III) chloride

Ans. (A)

#Q. Match the two columns : Glucose + 'X' → 'P'

	List-I (Reagent-X)		List-II (Product-P)
A.	Br_2/water	(i)	Glucosomine
B.	Acetic anhydride (excess)	(ii)	Saccharic acid
C.	Conc. HNO_3	(iii)	Glucose pentaacetate
D.	NH_2OH	(iv)	Gluconic acid

(A) A-iv, B-ii, C-iii, D-i

(B) A-ii, B-iv, C-iii, D-i

(C) A-ii, B-iii, C-iv, D-i

(D) A-iv, B-iii, C-ii, D-i

Ans. (D)

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#Q. Consider two reactions having same pre-exponential factor (A) at same temperature (T).

$A \xrightarrow{E_{a_1}} B$

$C \xrightarrow{E_{a_2}} D$

$E_{a_1} = 5\,E_{a_2}$

Find out correct expression?

A $\frac{k_1}{k_2} = e^{-\frac{E_{a_2}}{RT}}$

B $\frac{k_1}{k_2} = e^{-\frac{4E_{a_1}}{5RT}}$

C $\frac{k_1}{k_2} = e^{-\frac{4E_{a_1}}{RT}}$

D $\frac{k_1}{k_2} = e^{-\frac{4E_{a_2}}{5RT}}$

Ans. (B)

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#Q. Consider the given species.

H_2S, H_2O, NH_3, NF_3, $CHCl_3$

The number of lone pair on central atom which has lowest dipole moment.

A 0

B 1

C 2

D 3

Ans. (B)

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#Q. Consider the statements below

Statement I: BCl_3 is covalent in nature

Statement II: BCl_3 undergo hydrolysis to form $[B(OH)_4]^-$ and BH_2^+

In the light of above statements choose the correct option.

A. Statement I and statement II both are correct

B. Statement I and statement II both are incorrect

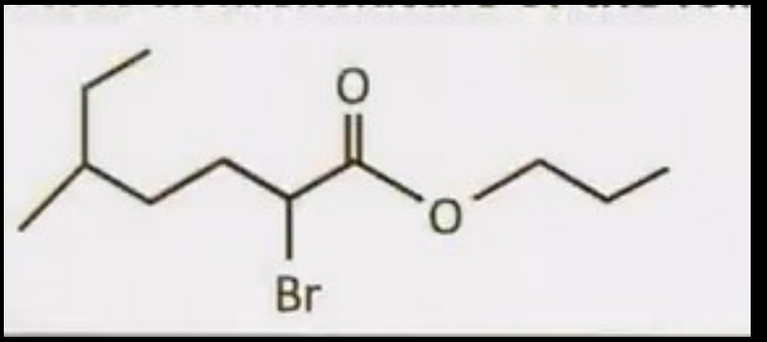
C. Statement I correct statement II incorrect

D. Statement I incorrect statement II correct

Ans. (C)

JEE MAIN 2026 LIVE PAPER DISCUSSION

#Q. The correct IUPAC nomenclature of the following compound is:



A Propyl-2-bromo-6-methylheptanoate

B 2-Bromo-5-methyl-1-propylheptanoate

C Propyl-2-bromo-5-ethylhexanoate

D Propyl-2-bromo-5-methylheptanoate

Ans. (D)