PAPER SOLUTION

From Meerut

JEE MAIN

2025

JAN	SHIFT
22	Ist

Aryan Agarwal
Founder and CEO
CVPS INTEGRATED STAR COURSE

#Q. Compare boiling point of given solutions

(i) 10^{-4} M NaCl (i) 10^{-3} M NaCl (i) 10^{-2} M NaCl (i) 10^{-4} M urea

A I > II > III> IV

B III > II > I > IV

C II > I > III > IV

D III > I > II > IV

Ans. (B)

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. The correct decreasing order of electronegativity is:

A. F > Cl > I > Br

B. Cl > F > Br > I

C. F > Cl > Br > I

D. Br > F > I > Cl

Ans. (C)

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. For $[NiCl_4]^{-2}$ what is the charge on metal and shape of complex respectively?

A. +2, tetrahedral

B. +2, square planar

C. +4, tetrahedral

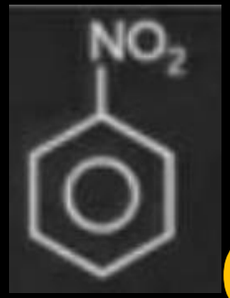
D. +4, square planar

Ans. (A)

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q.



(i) Sn/HCl
(ii) $NaNO_2$/HCl
⟶ A
(iii) CuCl/HCl
(iv) Na/dryether

Find molecular weight of A.

Ans. 154 (biphenyl)

#Q. Which of the following has maximum size out of Al^{3+}, Al^{3+}, Mg^{2+}, F^{-}, Na^{+}.

A Al^{3+}

B Mg^{2+}

C F^{-}

D Na^{+}

Ans. (C)

#Q. How many compounds have linear shape SO_2, $BeCl_2$, N_3^-, I_3^-, NO_2^+, NO_2?

Ans. 4

#Q. Calculate Number of stereoisomers of $CH_3 - CH = CH - \underset{\displaystyle OH}{\underset{|}{CH}} - CH_3$.

Ans. 4

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. Electrolysis of which compound give $H_2S_2O_8$.

(NCERT 12th Part – I, Page No – 54)

A Electrolysis of Conc. Na_2SO_4

B Electrolysis of Dil. Na_2SO_4

C Electrolysis of Conc. H_2SO_4

D Electrolysis of Dil. H_2SO_4

Ans. (C)

#Q. In carius method of estimation of chlorine a compound of 180g produces 144g of AgCl. Find percentage composition of chlorine?

Ans. 20

#Q. Statement I : $CH_3 - O - CH_2 - Cl$ will show nucleophilic substitution by S_N1 mechanism in protic medium.

Statement II : $CH_3 - \underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}} - CH_2 - Cl$ will not undergo nucleophilic substitution via S_N2 mechanism easily.

(A) Statement – I and Statement – II both are correct

(B) Statement – I and Statement – II both are incorrect

(C) Statement – I correct Statement – II is incorrect

(D) Statement – I incorrect Statement – II is correct

Ans. (A)

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. Which of the following acids is also known as vitamin C?

A. Adipic acid

B. Ascorbic acid

C. Saccharic acid

D. Aspartic acid

Ans. (B)

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

#Q. An electron of He^+ is present in 3rd excited state, find its de–Broglie wave length.

A $6.64\ \text{Å}$

B $1.66\ \text{Å}$

C $3.32\ \text{Å}$

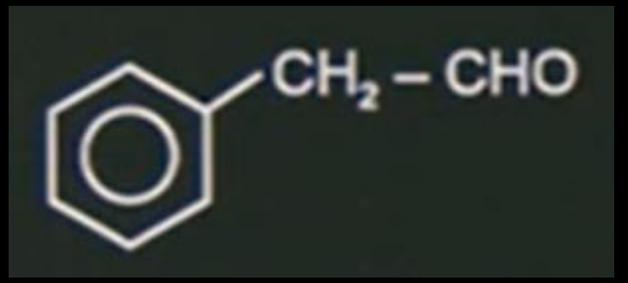
D $13.28\ \text{Å}$

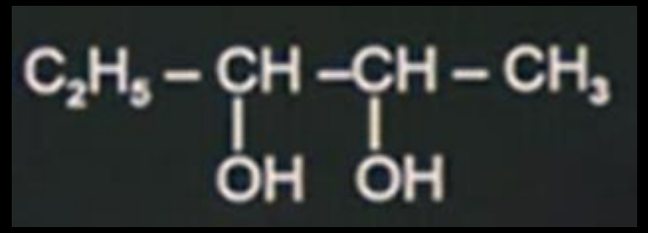
Ans. (A)

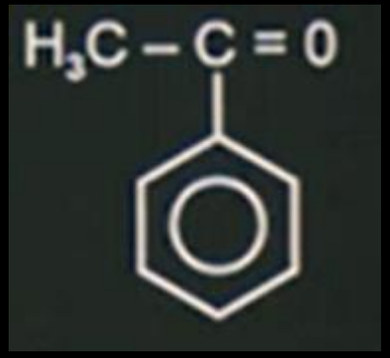
JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. Which will show positive Fehling test?

A 

B 

C 

D 

Ans. (B)

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. The Ground state radius of Hydrogen atom is a_0. Calculate the radius of first excited sate of Helium?

A $2a_0$

B a_0

C $4a_0$

D $6a_0$

Ans. (A)

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

#Q. $4f^7$ configuration is possible for:
(i) Eu^{3+}, (ii) Eu^{2+}, (iii) Gd^{3+}, (iv) Tb^{3+}, (v) Sm^{2+}

A i and iii

B ii and iii

C iv and v

D only iii

Ans. (B)

#Q. Given : $NH_2COONH_4 \rightleftharpoons 2NH_3(g) + CO_2(g)$

If the partial pressure of CO_2 gas at equilibrium is 0.4 atm and the total pressure is 1 atm, then the value of K_p at the same temperature is:

A $0.027\ atm^3$

B $0.064\ atm^3$

C $0.144\ atm^3$

D $0.216\ atm^3$

Ans. (C)

#Q. In a closed insulated container, a liquid is stirred with a paddle to increase the temperature, which of the following is true?

A $w = 0, \Delta E = q \neq 0$

B $\Delta E = w \neq 0, q = 0$

C $\Delta E = w = 0, q \neq 0$

D $\Delta E = 0, w = q \neq 0$

Ans. (B)

#Q. $CO_{2(g)} + C_{(s)} \rightleftharpoons 2CO_{(g)}$

If initial pressure of CO_2 is 0.6 atm and after the equilibrium is established, total pressure is 0.8 atm Then find K_p.

A 0.4

B 0.2

C 0.8

D 0.6

Ans. (A)

#Q. Given : $NH_2COONH_4(s) \rightleftharpoons 2NH_3(g) + CO_2(g)$

If the partial pressure of CO_2 gas at equilibrium is 0.4 atm and the total pressure is 1 atm, then the value of K_p at the same temperature is:

A $0.027\ atm^3$

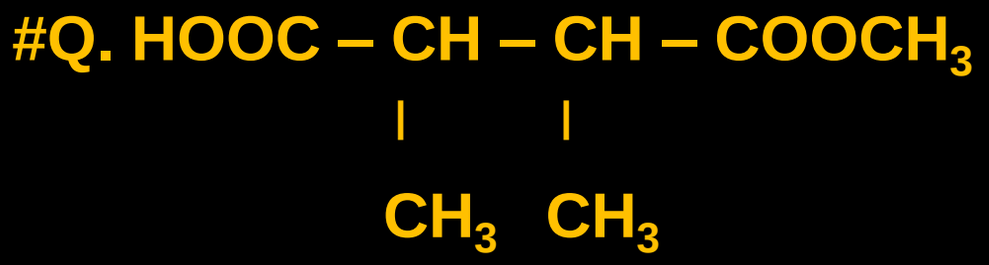
B $0.064\ atm^3$

C $0.144\ atm^3$

D $0.216\ atm^3$

Ans. (C)

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. 

IUPAC Name?

(A) 2, 3–dimethyl methyl carboxy butanoic acid

(B) 4–methoxy corbonyl–2, 3–dimethyl propanoic acid

(C) 2–methyl–3–methoxycarbonyl butanoic acid

(D) 1–carboxy–2, 3–dimethyl methyl butanoate

Ans. (C)

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. Incorrect Statement.

A. BP of cis–2–butene is greater than trans 2–butene.

B. 2–methyl 2–butene can have two geometrical isomers

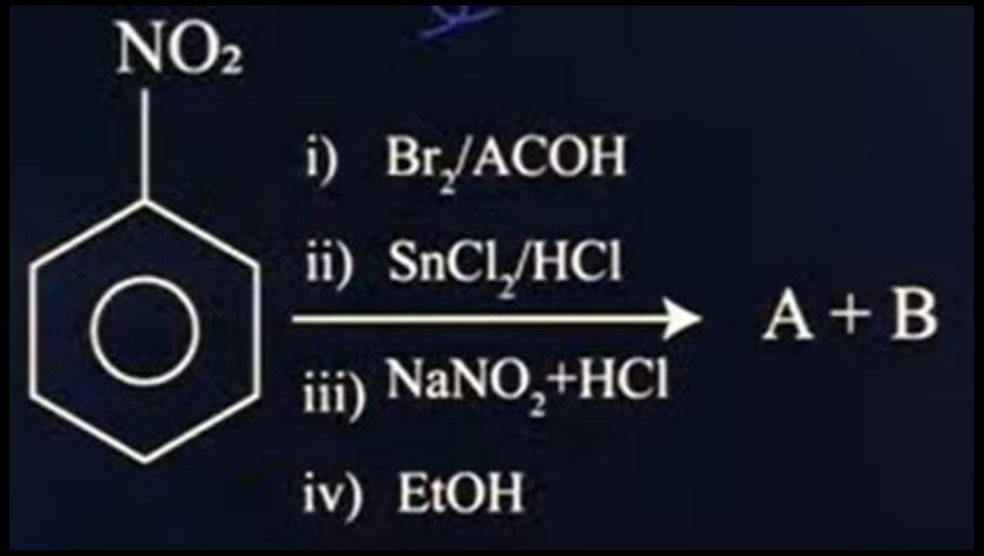
C. DP moment of cis–2–butene is greater than trans–2–butene

D. In trans isomer identical group are opposite direction

Ans. (B)

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q.



Ans. Bromobenzene and Ethanal

CVPS INTEGRATED STAR COURSE, MEERUT FOR MORE DETAILS CONTACT +91 9997000558

JEE MAIN 2025 LIVE PAPER DISCUSSION

#Q. Match the column and choose the correct option.

Column – I (Properties)		Column –II (Order)	
A.	Electronegativity	1.	B < C < N < O
B.	Cationic size	2.	Li > Mg > Be
C.	Metallic Character	3.	K > Mg > Al
D.	Electron affinity	4.	Cl > F > Br > I

(A) $A-1, B-2, C-3, D-4$

(B) $A-4, B-3, C-2, D-1$

(C) $A-2, B-3, C-4, D-1$

(D) $A-3, B-2, C-4, D-1$

Ans. (A)