JEE 2026 Session-1 Solutions

23rd Jan. Shift–1

Memory Based Questions

Sri Chaitanya ACADEMY JEE

The correct order of ionisation energy of Cl, S, P, Al, Si is

a) $Cl > P > S > Si > Al$

b) $P > Cl > S > Al > Si$

c) $Cl > S > P > Si > Al$

d) $Cl > Al > Si > P > S$

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Memory Based Questions

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Given below are two statements.

Statement I : $[CoBr_4]^{2-}$ absorbs lesser energy than $[CoCl_4]^{2-}$

Statement II : $[CoCl_4]^{2-}$ has higher crystal field splitting energy then $[CoBr_4]^{2-}$

In the light of the above statements, which is the correct option.

a) Both statement-I and statement-II are correct

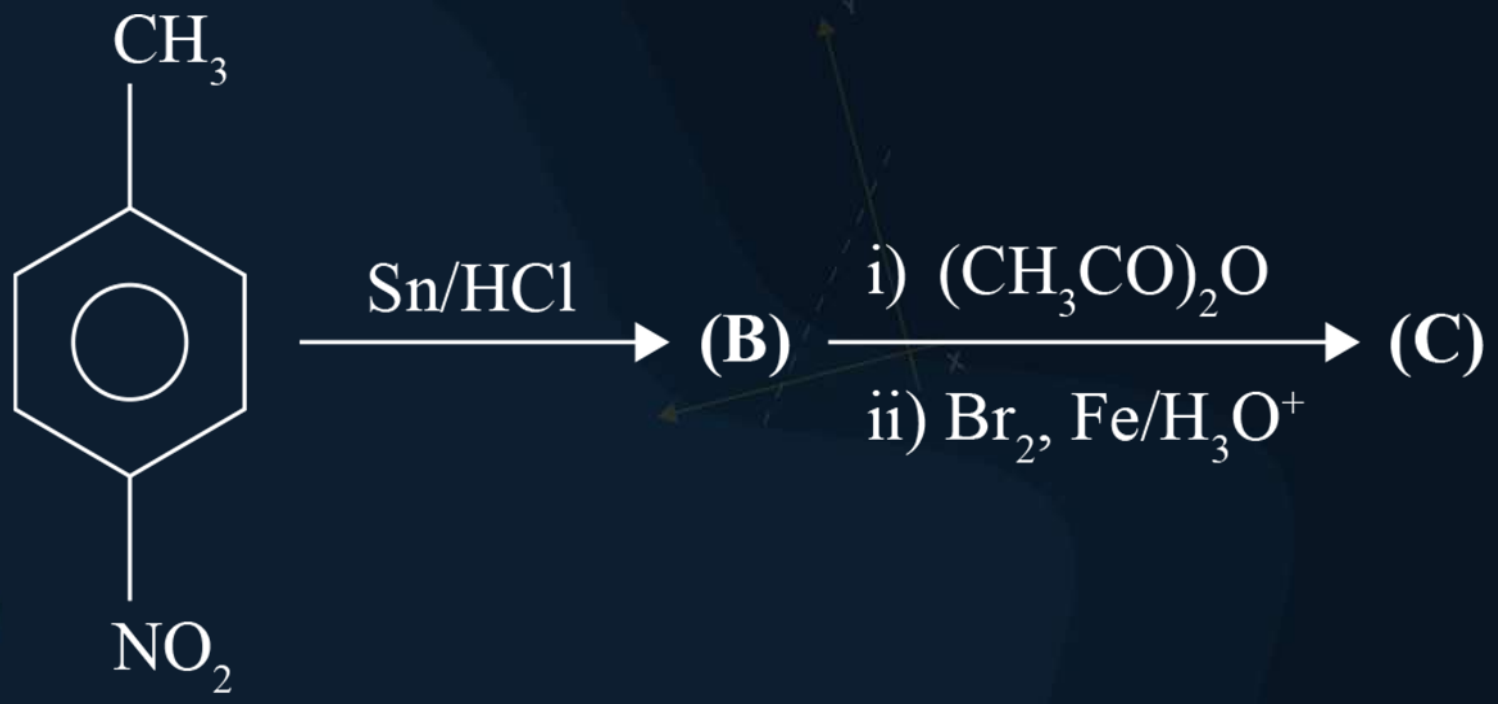
b) Both statement-I and statement-II are incorrect

c) Statement-I is correct and statement-II is incorrect

d) Statement-I is incorrect and statement-II is correct

JEE 2026 Session-1 Solutions

In the reaction sequence, what is the mass (in grams) of product (C) formed?



(A)

(137 g)

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Memory Based Questions

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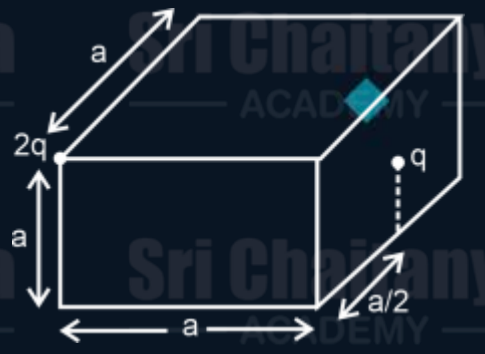
There are two point charges, one at vertex and other at face of a cube as shown in the figure. Find electric flux through the cube.

A. $3q/\varepsilon_0$
B. q/ε_0
C. $3q/4\varepsilon_0$
D. $5q/\varepsilon_0$



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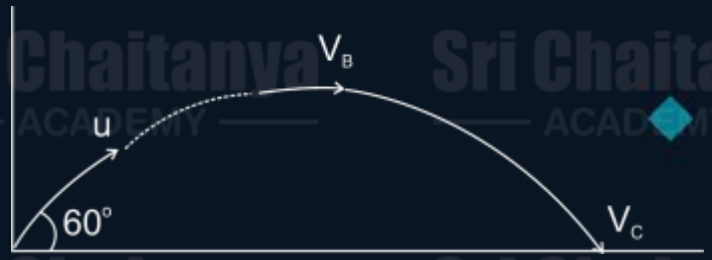
Memory Based Questions

If a projectile is being launched with speed v and angle of projection is 60° with horizontal. Find the ratio of speed at highest point to the speed at final point .



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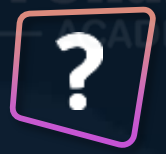

Find de - broglie wavelength of O_2 molecule.

Given mass of O_2 molecule is m_{O_2} and the Temp is $27^\circ C$.

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Memory Based Questions

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? A rectangle is formed by lines $x = 0, y = 0, x = 3, y = 4$. A line perpendicular to $3x + 4y + 6 = 0$ divides the rectangle into two equal parts, then the distance of the line from $\left(-1, \frac{3}{2}\right)$ is

A) 2

B) $\frac{17}{10}$

C) $\frac{6}{5}$

D) $\frac{8}{5}$

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Memory Based Questions

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Number of 4 letters words with or without meaning formed from the letters of the word PQRSSSTTUVV is

A) 1232
B) 1400
C) 1422
D) 1162

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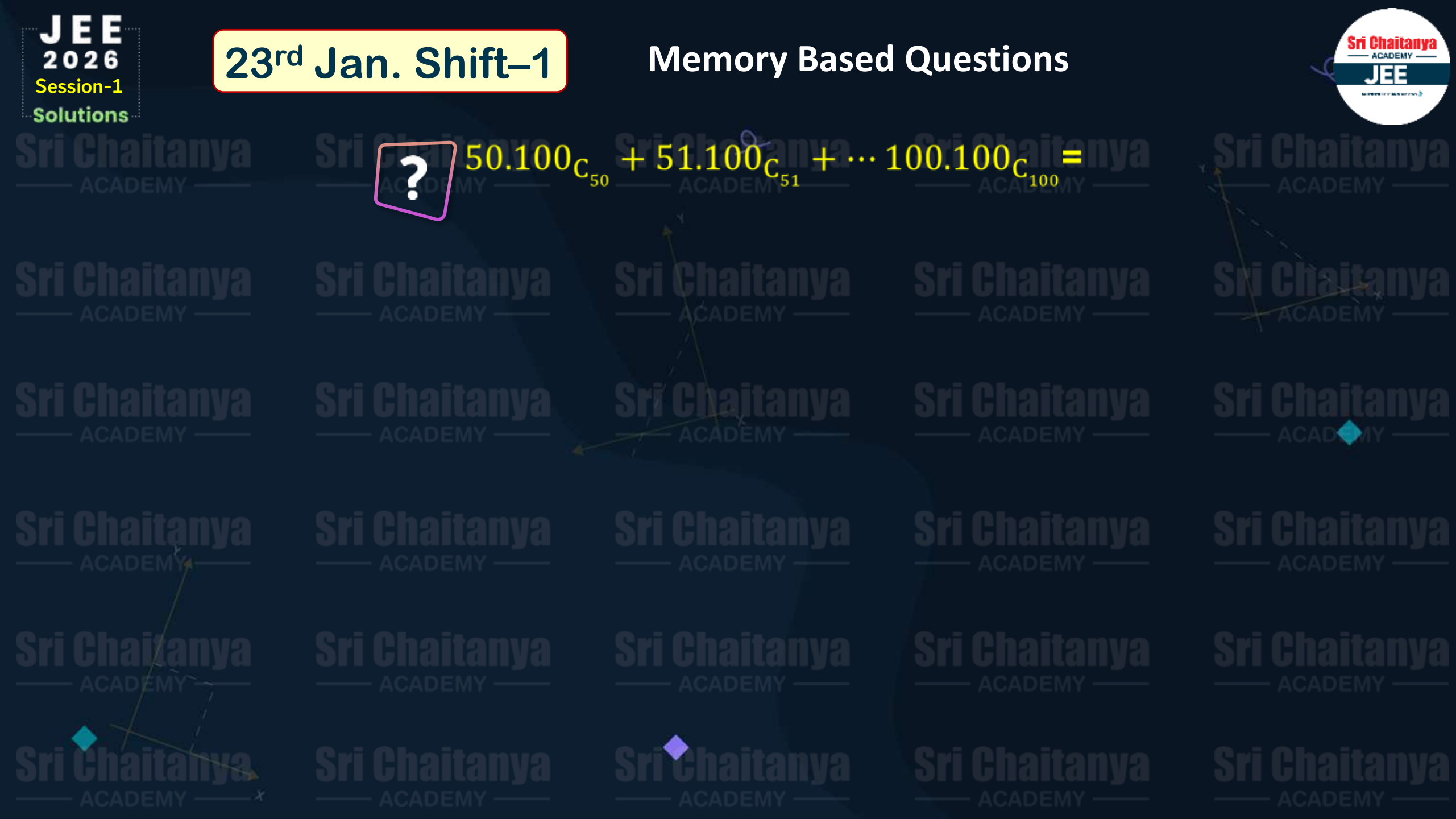
Memory Based Questions

? $50.{}^{100}C_{50} + 51.{}^{100}C_{51} + \cdots 100.{}^{100}C_{100} =$



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Memory Based Questions

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? $\int_{\frac{\pi}{24}}^{\frac{5\pi}{24}} \frac{dx}{1+\sqrt[3]{\tan 2x}} =$

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Memory Based Questions

?

$$\int \frac{(2-x^2)e^x}{\sqrt{1+x}\cdot(\sqrt{1-x})^3}dx =$$

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Memory Based Questions

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For the following change,

$$\underset{5^\circ C}{H_2O(\ell)} \rightarrow \underset{100^\circ C}{H_2O(g)}$$

Select the correct answer:

1) $q = +ve, w = +ve, \Delta H = +ve$

2) $q = -ve, w = -ve, \Delta H = +ve$

3) $q = +ve, w = -ve, \Delta H = +ve$

4) $q = -ve, w = -ve, \Delta H = -ve$

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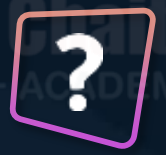

A) Ionic radii of trivalent cations of Group 13 elements decrease down the group.
B) Electronegativity of Group 13 elements decreases down the group.
C) Among the Group 13 elements, boron has the highest first ionisation enthalpy.
D) The trichlorides and triiodides of Group 13 elements are covalent in nature.

Choose the correct answer from the options given below:

1) B and D only
2) A and D only
3) C and D only
4) A and C only

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Memory Based Questions

Sri Chaitanya ACADEMY JEE

Given below are two statements.

Statement I : Sublimation is used for the separation and purification of compounds with low melting point.

Statement II : The boiling point of a liquid increases as the external pressure is reduced.

In the light of the above statements, which is 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 and statement-II is incorrect

d) Statement-I is incorrect and statement-II is correct

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Memory Based Questions

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Given,

(A) $n=5, m_l=-1$

(B) $n=3, l=2, m_l=-1, m_s=+1/2$

The maximum number of electrons in an atom that can have the given quantum numbers in (A) and (B) respectively are:

1) 6 and 1

2) 4 and 1

3) 8 and 1

4) 2 and 4

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Memory Based Questions

Sri Chaitanya ACADEMY JEE

? Correct order of +3 ionic radices among B, Ai, Ga, In, Tl.

1) $B^{3+} < Ai^{3+} < Ga^{3+} < In^{3+} < Tl^{3+}$
2) $B^{3+} < Ai^{3+} < Ga^{3+} < Tl^{3+} < In^{3+}$
3) $B^{3+} < Ga^{3+} < Ai^{3+} < Tl^{3+} < In^{3+}$
4) $Ai^{3+} < B^{3+} < Ga^{3+} < In^{3+} < Tl^{3+}$