

PYQSide

JEE MAIN THERMODYNAMICS — PYQS

Max. Marks: 160

Questions: 40

Section A (MCQ)

Q.1 Arrange the following isothermal processes in order of the magnitude of the work ($p - V$) involved between states 1 and 2.

- Expansion in single stage w_A
- Expansion in multi stages w_B
- Compression in single stage w_C
- Compression in multi stages w_D

Choose the correct option.

[JEE Main 2026 (Online) 6th April Morning Shift]

- $|w_B| > |w_A| > |w_C| > |w_D|$
- $|w_C| > |w_D| > |w_A| > |w_B|$
- $|w_C| > |w_D| > |w_B| > |w_A|$
- $|w_B| > |w_A| > |w_D| > |w_C|$

Scan or tap for the full solution



Q.2 Match **List - I** with **List - II**.

Given V_1 and V_2 are initial and final volumes respectively.

Isothermal process		Expression	
A.	Reversible expansion	I.	$q = 0$
B.	Free expansion	II.	$q = nRT \ln \frac{V_2}{V_1}$
C.	Irreversible Compression	III.	$w = -p_{\text{ext}}(V_2 - V_1)$
D.	Cyclic reversible	IV.	$\frac{q_{\text{rev}}}{T} = 0$

Choose the correct answer from the options given below : [JEE Main 2026 (Online) 6th April Evening Shift]

- A-II, B-III, C-I, D-IV
- A-II, B-I, C-IV, D-III
- A-II, B-I, C-III, D-IV
- A-I, B-II, C-III, D-IV

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Q.3 Consider the following data for the reaction $X_2(g) + Y_2(g) \rightleftharpoons 2XY(g)$

at 600 K. The $\Delta_r G^\ominus$ (in kJ mol^{-1}) for the reaction is :

Compound	$\Delta_f H_{600\text{K}}^\ominus$ (kJ mol^{-1})	$S_{600\text{K}}^\ominus$ ($\text{J mol}^{-1} \text{K}^{-1}$)
$XY(g)$	42	200
$X_2(g)$	8	140
$Y_2(g)$	80	250

[JEE Main 2026 (Online) 5th April Evening Shift]

- 21000
- 10
- 1000
- 9.012

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Q.4 The correct order of molar heat capacities measured at 298 K and 1 bar is :

[JEE Main 2026 (Online) 5th April Evening Shift]

- Copper(s) > Bromine(l) > Helium(g)
- Bromine(l) > Copper(s) > Helium(g)
- Helium(g) > Bromine(l) > Copper(s)
- Helium(g) > Bromine(l) = Copper(s)

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Q.5 Given below are two statements :

Statement-I: For an ideal gas, heat capacity at constant volume is always greater than the heat capacity at constant pressure.

Statement-II: In a constant volume process, no work is produced and all the heat withdrawn goes into the chaotic motion and is reflected by a temperature increase of the ideal gas.

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

[JEE Main 2026 (Online) 4th April Morning Shift]

- Both Statement-I and Statement-II are true
- Both Statement-I and Statement-II are false
- Statement-I is true but Statement-II is false
- Statement-I is false but Statement-II is true

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Q.6 Consider the following data.

- $2\text{Al}(s) + 6\text{HCl}(aq) \longrightarrow \text{Al}_2\text{Cl}_6(aq) + 3\text{H}_2(g) + 1200 \text{ kJ/mol}$
- $\text{H}_2(g) + \text{Cl}_2(g) \longrightarrow 2\text{HCl}(g) + 164 \text{ kJ/mol}$
- $\text{HCl}(g) + aq \longrightarrow \text{HCl}(aq) + 83 \text{ kJ/mol}$
- $\text{Al}_2\text{Cl}_6(s) + aq \longrightarrow \text{Al}_2\text{Cl}_6(aq) + 663 \text{ kJ/mol}$

The enthalpy of formation of anhydrous solid Al_2Cl_6 is :

[JEE Main 2026 (Online) 2nd April Morning Shift]

- 648 kJ mol^{-1}
- 1350 kJ mol^{-1}
- 2002 kJ mol^{-1}
- 1527 kJ mol^{-1}

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- Q.7** Gas 'A' undergoes change from state 'X' to state 'Y'. In this process, the heat absorbed and work done by the gas is 10 J and 18 J respectively. Now gas is brought back to state 'X' by another process during which 6 J of heat is evolved. In the reverse process of 'Y' to 'X',

[JEE Main 2026 (Online) 2nd April Evening Shift]

- (1) 18 J of the work is done by the gas 'A'.
- (2) 2 J of the work is done by the gas 'A'.
- (3) 12 J of the work is done on the gas 'A' by the surrounding.
- (4) 14 J of the work is done on the gas 'A' by the surrounding.

Scan or tap for the full solution



- Q.8** 20.0 dm³ of an ideal gas 'X' at 600 K and 0.5 MPa undergoes isothermal reversible expansion until pressure of the gas is 0.2 MPa. Which of the following option is correct?

(Given: $\log 2 = 0.3010$ and $\log 5 = 0.6989$)

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

- (1) $w = -9.1$ kJ, $\Delta U = 0$, $\Delta H = 0$, $q = 9.1$ kJ
- (2) $w = 9.1$ J, $\Delta U = 9.1$ J, $\Delta H = 0$; $q = 0$
- (3) $w = -3.9$ kJ, $\Delta U = 0$, $\Delta H = 0$; $q = 3.9$ kJ
- (4) $w = +4.1$ kJ, $\Delta U = 0$, $\Delta H = 0$; $q = -4.1$ kJ

Scan or tap for the full solution



- Q.9** The plot of $\log_{10} K$ vs $\frac{1}{T}$ gives a straight line. The intercept and slope respectively are (where K is the equilibrium constant).

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

- (1) $-\frac{\Delta S^\circ R}{2.303}$, $\frac{\Delta H^\circ R}{2.303}$
- (2) $-\frac{\Delta H^\circ}{2.303R}$, $\frac{\Delta S^\circ}{2.303R}$
- (3) $\frac{\Delta S^\circ}{2.303R}$, $-\frac{\Delta H^\circ}{2.303R}$
- (4) $\frac{2.303R}{\Delta H^\circ}$, $\frac{2.303R}{\Delta S^\circ}$

Scan or tap for the full solution



- Q.10** Match the LIST-I with LIST-II

List-I Isothermal process for ideal gas system		List-II Work done ($\Delta V_f > V_i$)	
A.	Reversible expansion	I.	$w = 0$
B.	Free expansion	II.	$w = -nRT \ln \left(\frac{V_f}{V_i} \right)$
C.	Irreversible expansion	III.	$w = -p_{\text{ex}}(V_f - V_i)$
D.	Irreversible compression	IV.	$w = -p_{\text{ex}}(V_i - V_f)$

Choose the correct answer from the options given below:

[JEE Main 2026 (Online) 24th January Morning Shift]

- (1) A-IV, B-I, C-III, D-II
- (2) A-I, B-III, C-II, D-IV
- (3) A-II, B-I, C-III, D-IV
- (4) A-IV, B-II, C-III, D-I

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- Q.11** The heats of atomisation of methane and ethane are 'x' kJ mol⁻¹ and 'y' kJ mol⁻¹ respectively. The longest wavelength (λ) of light capable of breaking the C–C bond can be expressed in SI unit as :

[JEE Main 2026 (Online) 24th January Evening Shift]

- (1) $\frac{N_A hc}{250(y - 6x)}$
- (2) $N_A hc \left(y - \frac{6x}{4} \right)^{-1}$
- (3) $\frac{hc}{1000} \left(\frac{y - 6x}{4} \right)^{-1}$
- (4) $\frac{N_A hc}{250(4y - 6x)}$

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- Q.12** A cup of water at 5°C (system) is placed in a microwave oven and the oven is turned on for one minute during which the water begins to boil. Which of the following options is true?

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

- (1) $q = +ve$, $w = -ve$, $\Delta U = +ve$
- (2) $q = +ve$, $w = 0$, $\Delta U = -ve$
- (3) $q = +ve$, $w = -ve$, $\Delta U = -ve$
- (4) $q = -ve$, $w = -ve$, $\Delta U = -ve$

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- Q.13** Match the LIST-I with LIST-II

List-I Thermodynamic Process		List-II Magnitude in kJ	
A.	Work done in reversible, isothermal expansion of 2 mol of ideal gas from 2 dm ³ to 20 dm ³ at 300 K.	I.	4
B.	Work done in irreversible isothermal expansion of 1 mol ideal gas from 1 m ³ to 3 m ³ at 300 K against a constant pressure of 3 kPa.	II.	11.5
C.	Change in internal energy for adiabatic expansion of 1 mol ideal gas with change of temperature = 320 K and $\bar{C}_V = \frac{3}{2}R$.	III.	6

List-I Thermodynamic Process		List-II Magnitude in kJ	
D.	Change in enthalpy at constant pressure of 1 mol ideal gas with change of temperature = 337 K and $\bar{C}_p = \frac{5}{2}R$.	IV.	7

Choose the correct answer from the options given below :

[JEE Main 2026 (Online) 22nd January Morning Shift]

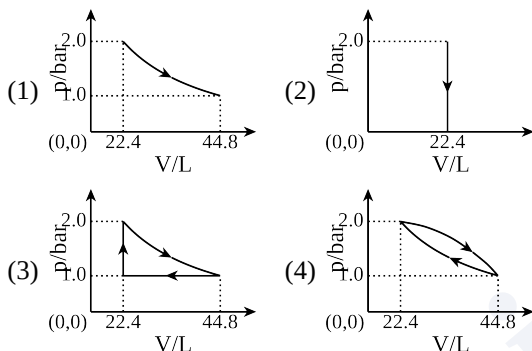
- (1) A-I, B-II, C-III, D-IV (2) A-III, B-II, C-IV, D-I
(3) A-II, B-I, C-III, D-IV (4) A-II, B-III, C-I, D-IV

Scan or tap for the full solution



Q.14 Which of the following graphs between pressure 'p' versus volume 'V' represents the maximum work done?

[JEE Main 2026 (Online) 21st January Morning Shift]



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Q.15 Consider the following data :
 $\Delta_f H^\circ$ (methane, g) = $-X \text{ kJ mol}^{-1}$
 Enthalpy of sublimation of graphite = $Y \text{ kJ mol}^{-1}$
 Dissociation enthalpy of H_2 = $Z \text{ kJ mol}^{-1}$
 The bond enthalpy of C-H bond is given by :

[JEE Main 2026 (Online) 21st January Evening Shift]

- (1) $\frac{X+Y+2Z}{4}$ (2) $\frac{X+Y+4Z}{2}$
(3) $\frac{-X+Y+Z}{4}$ (4) $X+Y+Z$

Scan or tap for the full solution



Q.16 Total enthalpy change for freezing of 1 mol of water at 10°C to ice at -10°C is _____
 (Given: $\Delta_{\text{fus}}H = x \text{ kJ/mol}$
 $C_p[\text{H}_2\text{O}(l)] = y \text{ J mol}^{-1} \text{ K}^{-1}$
 $C_p[\text{H}_2\text{O}(s)] = z \text{ J mol}^{-1} \text{ K}^{-1}$)

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

- (1) $-x-10y-10z$ (2) $x-10y-10z$
(3) $-10(100x+y+z)$ (4) $10(100x+y+z)$

Scan or tap for the full solution



Q.17 The hydration energies of K^+ and Cl^- are $-x$ and $-y$ kJ/mol respectively. If the lattice energy of KCl is $-z$ kJ/mol, then the heat of solution of KCl is :

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

- (1) $x+y+z$ (2) $z-(x+y)$
(3) $-z-(x+y)$ (4) $x-y-z$

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Q.18 The correct statement amongst the following is :

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

- (1) The standard state of a pure gas is the pure gas at a pressure of 1 bar and temperature 273 K.
 (2) $\Delta_f H^\circ_{500}$ is zero for $\text{O}_2(\text{g})$.
 (3) $\Delta_f H^\circ_{298}$ is zero for $\text{O}(\text{g})$.
 (4) The term 'standard state' implies that the temperature is 0°C .

Scan or tap for the full solution



Q.19 One mole of an ideal gas expands isothermally and reversibly from 10 dm^3 to 20 dm^3 at 300 K. ΔU , q and work done in the process respectively are
 Given: $R = 8.3 \text{ J K}^{-1} \text{ mol}^{-1}$
 $\ln 10 = 2.3$
 $\log 2 = 0.30$
 $\log 3 = 0.48$

[JEE Main 2025 (Online) 4th April Morning Shift]

- (1) 0, 21.84 kJ, -1.726 J
 (2) 0, 21.84 kJ, 21.84 kJ
 (3) 0, 1.718 kJ, -1.718 J
 (4) 0, -17.18 kJ , 1.718 J

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Q.20 Let us consider a reversible reaction at temperature, T . In this reaction, both ΔH and ΔS were observed to have positive values. If the equilibrium temperature is T_e , then the reaction becomes spontaneous at:

[JEE Main 2025 (Online) 4th April Morning Shift]

- (1) $T_e > T$ (2) $T > T_e$ (3) $T = T_e$ (4) $T_e = 5T$

Scan or tap for the full solution



Q.21 Consider the given data :

- (a) $\text{HCl}(\text{g}) + 10\text{H}_2\text{O}(\text{l}) \longrightarrow \text{HCl} \cdot 10\text{H}_2\text{O}$;
 $\Delta H = -69.01 \text{ kJ mol}^{-1}$
 (b) $\text{HCl}(\text{g}) + 40\text{H}_2\text{O}(\text{l}) \longrightarrow \text{HCl} \cdot 40\text{H}_2\text{O}$;
 $\Delta H = -72.79 \text{ kJ mol}^{-1}$

Choose the correct statement :

[JEE Main 2025 (Online) 4th April Evening Shift]

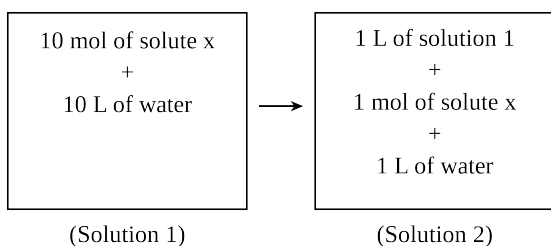
- (1) The heat of dilution for the HCl ($\text{HCl} \cdot 10\text{H}_2\text{O}$ to $\text{HCl} \cdot 40\text{H}_2\text{O}$) is 3.78 kJ mol^{-1} .
- (2) Dissolution of gas in water is an endothermic process.
- (3) The heat of solution depends on the amount of solvent.
- (4) The heat of formation of HCl solution is represented by both (a) and (b).

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Q.22 Which of the following properties will change when system containing solution 1 will become solution 2 ?

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



- (1) Molar heat capacity
- (2) Concentration
- (3) Gibbs free energy
- (4) Density

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Q.23 Given below are two statements:

Statement-I: When a system containing ice in equilibrium with water (liquid) is heated, heat is absorbed by the system and there is no change in the temperature of the system until whole ice gets melted.

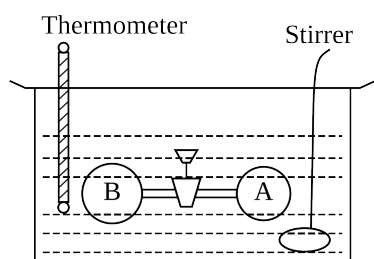
Statement-II: At melting point of ice, there is absorption of heat in order to overcome intermolecular forces of attraction within the molecules of water in ice and kinetic energy of molecules is not increased at melting point.

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) Both Statement-I and Statement-II are false
- (2) Statement-I is true but Statement-II is false
- (3) Both Statement-I and Statement-II are true
- (4) Statement-I is false but Statement-II is true

Scan or tap for the full solution



Q.24

Two vessels A and B are connected via stopcock. The vessel A is filled with a gas at a certain pressure. The entire assembly is immersed in water and is allowed to come to thermal equilibrium with water. After opening the stopcock the gas from vessel A expands into vessel B and no change in temperature is observed in the thermometer. Which of the following statement is true ?

[JEE Main 2025 (Online) 2nd April Morning Shift]

- (1) $dq \neq 0$
- (2) The pressure in the vessel B before opening the stopcock is zero
- (3) $dw \neq 0$
- (4) $dU \neq 0$

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Q.25 Arrange the following in order of magnitude of work done by the system/on the system at constant temperature.

- (a) $|w_{\text{reversible}}|$ for expansion in infinite stages.
- (b) $|w_{\text{irreversible}}|$ for expansion in single stage.
- (c) $|w_{\text{reversible}}|$ for compression in infinite stages.
- (d) $|w_{\text{irreversible}}|$ for compression in single stage.

Choose the correct answer from the options given below:

[JEE Main 2025 (Online) 2nd April Evening Shift]

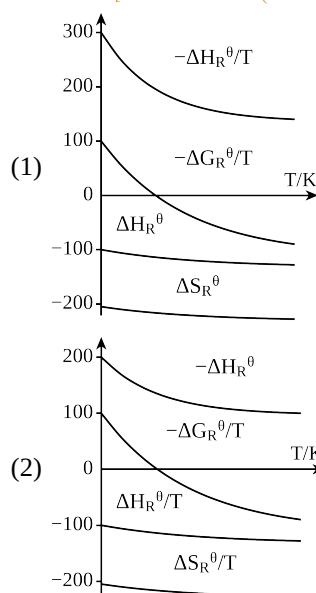
- (1) $d > c = a > b$
- (2) $c = a > d > b$
- (3) $a > c > b > d$
- (4) $a > b > c > d$

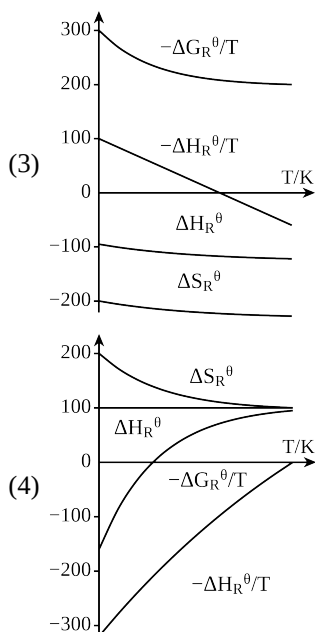
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Q.26 Which of the following graphs correctly represents the variation of thermodynamic properties of Haber's process?

[JEE Main 2025 (Online) 2nd April Evening Shift]





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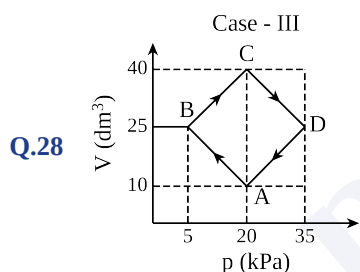


Q.27 500 J of energy is transferred as heat to 0.5 mol of Argon gas at 298 K and 1.00 atm. The final temperature and the change in internal energy respectively are: Given: $R = 8.3 \text{ J K}^{-1} \text{ mol}^{-1}$

[JEE Main 2025 (Online) 29th January Morning Shift]

- (1) 368 K and 500 J (2) 348 K and 300 J
(3) 378 K and 300 J (4) 378 K and 500 J

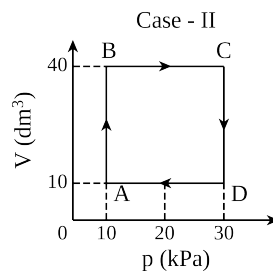
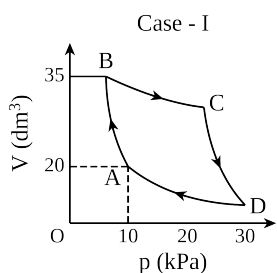
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An ideal gas undergoes a cyclic transformation starting from the point A and coming back to the same point by tracing the path $A \rightarrow B \rightarrow C \rightarrow D \rightarrow A$ as shown in the three cases above.

Choose the correct option regarding ΔU :

[JEE Main 2025 (Online) 28th January Evening Shift]



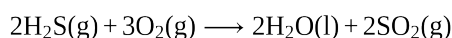
- (1) $\Delta U(\text{Case-III}) > \Delta U(\text{Case-II}) > \Delta U(\text{Case-I})$
(2) $\Delta U(\text{Case-I}) > \Delta U(\text{Case-II}) > \Delta U(\text{Case-III})$
(3) $\Delta U(\text{Case-I}) = \Delta U(\text{Case-II}) = \Delta U(\text{Case-III})$
(4) $\Delta U(\text{Case-I}) > \Delta U(\text{Case-III}) > \Delta U(\text{Case-II})$

Scan or tap for the full solution



Section B (Numerical)

Q.29 Consider the reaction



The magnitude of enthalpy change for the reaction in kJ mol^{-1} is _____. (Nearest integer)

Given : $\Delta_f H^\ominus(\text{H}_2\text{S}) = -20.1 \text{ kJ mol}^{-1}$

$\Delta_f H^\ominus(\text{H}_2\text{O}) = -286.0 \text{ kJ mol}^{-1}$

$\Delta_f H^\ominus(\text{SO}_2) = -297.0 \text{ kJ mol}^{-1}$

[JEE Main 2026 (Online) 8th April Evening Shift]

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Q.30 Consider the reaction $X \rightleftharpoons Y$ at 300 K. If $\Delta H^\ominus$ and K are $28.40 \text{ kJ mol}^{-1}$ and 1.8×10^{-7} at the same temperature, then the magnitude of $\Delta S^\ominus$ for the reaction in $\text{J K}^{-1} \text{ mol}^{-1}$ is _____. (Nearest integer)
(Given : $R = 8.3 \text{ J K}^{-1} \text{ mol}^{-1}$, $\ln 10 = 2.3$, $\log 3 = 0.48$, $\log 2 = 0.30$)

[JEE Main 2026 (Online) 6th April Morning Shift]

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Q.31 If 3.365 g of ethanol (l) is burnt completely in a bomb calorimeter at 298.15 K, the heat produced is 99.472 kJ. The $|\Delta_f H^\ominus|$ of ethanol at 298.15 K is _____ $\times 10^2 \text{ kJ mol}^{-1}$. (Nearest integer)
Given: Standard enthalpy for combustion of graphite = $-393.5 \text{ kJ mol}^{-1}$
Standard enthalpy of formation of water (l) = $-285.8 \text{ kJ mol}^{-1}$
Molar mass in g mol^{-1} of C, H, O are 12, 1 and 16 respectively

[JEE Main 2026 (Online) 4th April Evening Shift]

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- Q.32** At the transition temperature T , $A \rightleftharpoons B$ and $\Delta G^\circ = 105 - 35 \log T$ where A and B are two states of substance X . The transition temperature in $^\circ\text{C}$ when pressure is 1 atm is _____. (Nearest integer)

[JEE Main 2026 (Online) 2nd April Morning Shift]

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- Q.33** If the enthalpy of sublimation of Li is 155 kJ mol^{-1} , enthalpy of dissociation of F_2 is 150 kJ mol^{-1} , ionization enthalpy of Li is 520 kJ mol^{-1} , electron gain enthalpy of F is -313 kJ mol^{-1} , standard enthalpy of formation of LiF is -594 kJ mol^{-1} . The magnitude of lattice enthalpy of LiF is _____ kJ mol^{-1} . (Nearest Integer)

[JEE Main 2026 (Online) 22nd January Evening Shift]

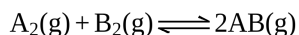
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- Q.34** Use the following data :

Substance	$\Delta_f H^\ominus(500 \text{ K})$ kJ mol^{-1}	$S^\ominus(500 \text{ K})$ $\text{J K}^{-1} \text{mol}^{-1}$
AB(g)	32	222
$\text{A}_2(\text{g})$	6	146
$\text{B}_2(\text{g})$	x	280

One mole each of $\text{A}_2(\text{g})$ and $\text{B}_2(\text{g})$ are taken in a 1 L closed flask and allowed to establish the equilibrium at 500 K.



The value of x (in kJ mol^{-1}) is _____. (Nearest integer)

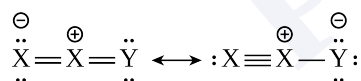
(Given : $\log K = 2.2$, $R = 8.3 \text{ J K}^{-1} \text{mol}^{-1}$)

[JEE Main 2026 (Online) 21st January Morning Shift]

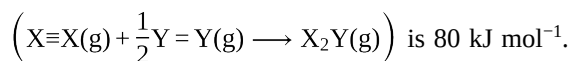
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- Q.35** Resonance in X_2Y can be represented as



The enthalpy of formation of X_2Y



The magnitude of resonance energy of X_2Y is _____ kJ mol^{-1} (nearest integer value).

Given: Bond energies of $\text{X}\equiv\text{X}$, $\text{X}=\text{X}$, $\text{Y}=\text{Y}$ and $\text{X}-\text{Y}$ are 940, 410, 500, and 602 kJ mol^{-1} respectively.

Valence X : 3, Y : 2

[JEE Main 2025 (Online) 8th April Evening Shift]

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- Q.36** Given :

$$\Delta_{\text{sub}} H^\ominus[\text{C (graphite)}] = 710 \text{ kJ mol}^{-1}$$

$$\Delta_{\text{C-H}} H^\ominus = 414 \text{ kJ mol}^{-1}$$

$$\Delta_{\text{H-H}} H^\ominus = 436 \text{ kJ mol}^{-1}$$

$$\Delta_{\text{C=C}} H^\ominus = 611 \text{ kJ mol}^{-1}$$

The $\Delta_f H^\ominus$ for $\text{CH}_2=\text{CH}_2$ is _____ kJ mol^{-1} (nearest integer value)

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

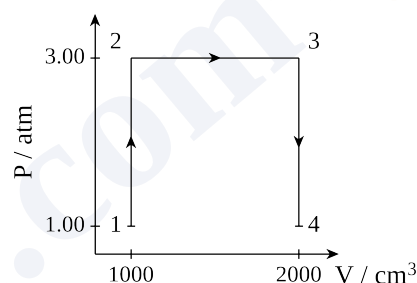
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- Q.37** A perfect gas (0.1 mol) having $\bar{C}_v = 1.50 R$ (independent of temperature) undergoes the following transformation from point 1 to point 4. If each step is reversible, the total work done (w) while going from point 1 to point 4 is $(-)$ _____ J (nearest integer)

[Given: $R = 0.082 \text{ L atm K}^{-1} \text{mol}^{-1}$]

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



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- Q.38** A sample of n -octane (1.14 g) was completely burnt in excess of oxygen in a bomb calorimeter, whose heat capacity is 5 kJ K^{-1} . As a result of combustion reaction, the temperature of the calorimeter is increased by 5 K. The magnitude of the heat of combustion of octane at constant volume is _____ kJ mol^{-1} (nearest integer).

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

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- Q.39** The formation enthalpies, $\Delta_f H^\ominus$ for H(g) and O(g) are 220.0 and $250.0 \text{ kJ mol}^{-1}$, respectively, at 298.15 K, and $\Delta_f H^\ominus$ for $\text{H}_2\text{O(g)}$ is $-242.0 \text{ kJ mol}^{-1}$ at the same temperature. The average bond enthalpy of the O-H bond in water at 298.15 K is _____ kJ mol^{-1} (nearest integer).

[JEE Main 2025 (Online) 28th January Morning Shift]

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Q.40 Consider the following data:

Heat of formation of $\text{CO}_2(\text{g}) = -393.5 \text{ kJ mol}^{-1}$

Heat of formation of $\text{H}_2\text{O}(\text{l}) = -286.0 \text{ kJ mol}^{-1}$

Heat of combustion of benzene = $-3267.0 \text{ kJ mol}^{-1}$

The heat of formation of benzene is _____
 kJ mol^{-1} . (Nearest integer)

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ANSWER KEY

Section A (MCQ)

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	3	3	2	2	4	4	4	1	3	3	4
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	1	4	1	1	3	2	2	3	2	3	3
Ques.	23	24	25	26	27	28					
Ans.	3	2	1	1	2	3					

Section B (Numerical)

Ques.	29	30	31	32	33	34	35
Ans.	1126	34	3	727	1031	70	98
Ques.	36	37	38	39	40		
Ans.	25	304	2500	466	48		