PART 1 - CHEMISTRY

Topic : Thermodynamics

SECTION–1 : (Maximum Marks : 4)

- This section contains **ONE** question.
- Each question has **TWO** lists: **List-I** and **List-II**.
- Four options are given representing matching of elements from List-I and List-II. **ONLY ONE** of these four options corresponds to a correct matching.
- For each question, choose the option corresponding to the correct answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If ONLY the correct option is chosen;
Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);
Negative Marks : −1 In all other cases.

1. **List-I** contains various physical/chemical processes, and **List-II** contains combinations of changes in enthalpy (ΔH) and entropy (ΔS). Match each entry in **List-I** to the appropriate entry in **List-II**, and choose the correct option. [JEE Advanced 2026 Paper 1]

List-I		List-II	
P.	Physisorption	1.	$\Delta H > 0$ and $\Delta S > 0$
Q.	Diamond $\longrightarrow$ Graphite	2.	$\Delta H < 0$ and $\Delta S < 0$
R.	Denaturation of protein	3.	$\Delta H < 0$ and $\Delta S = 0$
S.	Propene $\longrightarrow$ Cyclopropane	4.	$\Delta H > 0$ and $\Delta S < 0$
		5.	$\Delta H < 0$ and $\Delta S > 0$

(A) P → 2; Q → 3; R → 5; S → 4
(B) P → 4; Q → 3; R → 5; S → 1
(C) P → 2; Q → 5; R → 1; S → 4
(D) P → 2; Q → 5; R → 1; S → 3

Scan or tap for the full solution

Space for Rough Work

JEE ADVANCED THERMODYNAMICS — SIGNS OF ΔH AND ΔS — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION–1																													
Ques.	1																												
Ans.	**C**																												