

PART 1 - CHEMISTRY

Topic : Solutions

SECTION-B : (Maximum Marks : 8)

This section contains **TWO** questions.

The answer to each question is a **NUMERICAL VALUE**.

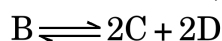
For each question, enter the correct numerical value of the answer (in decimal notation, truncated / rounded-off to the **SECOND DECIMAL PLACE**; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) in the place designated to enter the answer.

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct answer is entered;

Zero Marks : 0 In all other cases.

1. In a solvent S, a compound B is partially dissociated into C and D as given below:



B, C and D are non-volatile in nature. The molar mass of B is 10 times the molar mass of S. The standard boiling point and the standard enthalpy of vaporization of S are 400 K and $10R \text{ J mol}^{-1}$, respectively (R is the gas constant in $\text{J K}^{-1} \text{ mol}^{-1}$). A solution of B in S with an initial concentration of B as 0.25% (mass/mass) has a boiling point of 408 K at 1 bar pressure. In this solution, the mole percent of B that has been dissociated is ____.

[JEE Advanced 2026 Paper 2]

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full solution



2. Vessel-1 contains w_2 g of a non-volatile solute X dissolved in w_1 g of water. Vessel-2 contains w_2 g of another non-volatile solute Y dissolved in w_1 g of water. Both the vessels are at the same temperature and pressure. The molar mass of X is 80% of that of Y. The van't Hoff factor for X is 1.2 times of that of Y for their respective concentrations.

The elevation of boiling point for solution in Vessel-1 is ____ % of the solution in Vessel-2.

[JEE Advanced 2024 Paper 2]

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Space for Rough Work

**JEE ADVANCED SOLUTIONS — ELEVATION OF
BOILING POINT — PYQS**

Test Pattern : JEE (Advanced)

ANSWER KEY**SECTION-B**

Ques.	1	2							
Ans.	31.60 to 33.33	150							