

JEE MAIN SOLUTIONS — DEPRESSION OF FREEZING POINT — PYQS
Max. Marks: 8
Questions: 2
Section A (MCQ) — 2 questions
Q.1 Given below are two statements:

Statement-I: Molal depression constant K_f is given by $\frac{M_1 RT_f}{\Delta S_{fus}}$, where symbols have their usual meaning.

Statement-II: K_f for benzene is less than the K_f for water.

In the light of the above statements, choose the most appropriate answer from the options given below :

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

- (1) Statement-I is correct but Statement-II is incorrect
- (2) Both Statement-I and Statement-II are incorrect
- (3) Statement-I is incorrect but Statement-II is correct
- (4) Both Statement-I and Statement-II are correct

Scan or tap for the full solution



Q.2 What is the freezing point depression constant of a solvent, 50 g of which contain 1 g non-volatile solute (molar mass 256 g mol^{-1}) and the decrease in freezing point is 0.40 K ?

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

- (1) $4.43 \text{ K kg mol}^{-1}$
- (2) $3.72 \text{ K kg mol}^{-1}$
- (3) $5.12 \text{ K kg mol}^{-1}$
- (4) $1.86 \text{ K kg mol}^{-1}$

Scan or tap for the full solution


ANSWER KEY

Ques.	1	2									
Ans.	1	3									