

PART 1 - CHEMISTRY

Topic : Thermodynamics

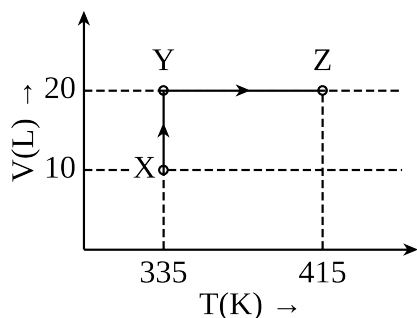
SECTION-1 : (Maximum Marks : 4)

- This section contains **ONE** question.
- The answer to each question is a **NON-NEGATIVE INTEGER**.
- For each question, enter the correct integer corresponding to the answer 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. Consider the following volume–temperature (V–T) diagram for the expansion of 5 moles of an ideal monoatomic gas.



Considering only P-V work is involved, the total change in enthalpy (in Joule) for the transformation of state in the sequence $X \rightarrow Y \rightarrow Z$ is _____.

[Use the given data: Molar heat capacity of the gas for the given temperature range, $C_{V,m} = 12 \text{ J K}^{-1} \text{ mol}^{-1}$ and gas constant, $R = 8.3 \text{ J K}^{-1} \text{ mol}^{-1}$]

[JEE Advanced 2024 Paper 1]

Scan or tap for the
full solution

Space for Rough Work

Test Pattern : **JEE (Advanced)**

SECTION-1

[illegible]