

PART 1 - CHEMISTRY

Topic : Thermodynamics

SECTION-B : (Maximum Marks : 4)

This section contains **ONE** question.

The answer to each question is a **NON-NEGATIVE INTEGER**.

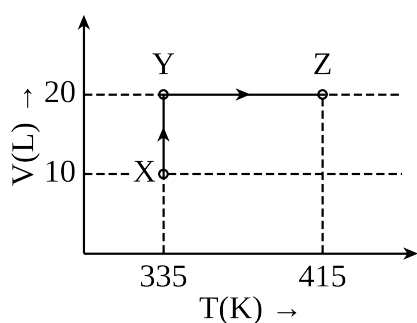
For each question, enter the correct integer corresponding to the answer in the place designated to enter the answer.

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

JEE ADVANCED THERMODYNAMICS — ENTHALPY CHANGE FROM V-T DIAGRAM — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION-B

[illegible]