

SHIVAJI COLLEGE, University of Delhi
Department of Chemistry
INTERNAL TEST (Academic Year 2023-24)

Name of the Course : BSc.(H) Chemistry

Name of the Paper : Thermodynamics & its Applications

Duration : one hour

Date of Test : 06/05/24

Semester : II

Faculty Name :

Dr. Vandana Kalut

Maximum Mark: 12

Attempt All Questions

Q1. Prove $TV^{r-1} = \text{const.}$

(2)

Q2. Prove entropy is a state function

(2)

Q3. Prove $\left(\frac{\partial P}{\partial T}\right)_V = \frac{\alpha}{\beta}$

(2)

Q4. Explain Joule's law. What does it give

(2)

Q5. Derive isothermal expansion of an ideal gas and give its values of ΔE , q , w , when external pressure is zero ($P_{\text{ext}} = 0$) for reversible and irreversible expansion

(3)

Q6. Explain residual entropy with an example

(2)

V Kalut
06/05/24

Dr. Vandana Kalut