

J.E.E./A.I.P.M.T.Foundation - XI Chemistry Worksheet

Time: 30 min

Ch#6 : Thermodynamics -03

Full Marks: 20

Instructions:

- 1. All questions are compulsory.**
- 2. Please give the explanation for the answer where applicable.**

Q1 -Define the term Enthalpy.

(1 Mark)

Q2 -Two moles of an ideal gas initially at 27°C and one atmospheric pressure are compressed isothermally and reversibly till the final pressure of the gas is 10 atm. Calculate q, w and ΔU for the process.

(3 Marks)

Q3 -Define Heat capacity, specific heat capacity and molar heat capacity of a system.

(3 Marks)

Q4 -Define the term, Enthalpy change of a reaction or heat of reaction.

(1 Mark)

Q5 - Explain the enthalpy of combustion of a reaction?

(1 Mark)

Q6 - Define the Gibb's free energy. Give an expression for the Gibb's Helmholtz equation.

(3 Marks)

Q7 - Explain the Born-Haber Cycle in detail.

(5 Marks)

Q8 - Give the applications of Born Haber Cycle.

(3 Marks)