

SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

LESSON-PLAN

Class: B.Sc. IIIrd Semester

Semester: ODD/EVEN

Subject: Physical Chemistry

Session: 2020-21

Lecture Number	Topic
lect. 1.	Defination of Thermodynamic terms
lect. 2.	State and path functions and their differential
lect. 3.	Thermodynamic process, concept of heat, work
lect. 4.	Zeroth law of thermodynamical, first law of Thermodynamics.
lect. 5.	defination of Internal Energy, Ethalpy, heat capacity.
lect. 6.	Heat capacities at constant volume and pressure.
lect. 7.	Joule's law - joule-Thomson coefficient for ideal gas and real gas.
lect. 8.	Inversion temperature.
lect. 9.	Calculation of w , q and ΔH for Expansion of ideal gas.
lect. 10.	ΔH for expansion of ideal gas under isothermal and adiabatic.
lect. 11.	Temperature of dependence of enthalpy.
lect. 12.	Kirchhoff's Equation
lect. 13.	Bond energies and applications of bond energies.
lect. 14.	Equilibrium constant and free energy
lect. 15.	Concept of chemical potential
lect. 16.	Thermodynamic derivatives of law of chemical equilibrium.
lect. 17.	Temperature dependence of equilibrium constant

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Lecture Number	Topic
lect. 18.	Vant Hoff reaction isochore, isotherm
lect. 19	Le-Chatelier's principle and its application
lect. 20.	clapeyron equation and clausius-clapeyron equation
lect. 21	Nerst distribution law
lect. 22	Modification of distribution law when solute undergoes dissociation.
lect. 23	Association and chemical combination
lect. 24	Application of distribution law:-
lect. 25	Determination of degree of hydrolysis-
lect. 26.	Hydrolysis constant of aniline hydrochloride
lect. 27	Determination of equilibrium constant of potassium tri-iodide.
lect. 28	process of extraction.

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