LESSON PLAN- B.Sc. 3rd SEMESTER
Session: 2022-23

Name of teacher- Dr. Naveen Kumari, Assistant Professor

Subject- **Paper I- PHYSICS: Computer Programming, Thermodynamics**

CLASS	WEEKS	SYLLABUS
B.Sc 3rd Semester	22-8-2022 to 27-8-2022	**Unit-I Computer Programming:** Computer organisation, Binary representation,
	29-8-2022 to 3-9-2022	Algorithm development, flow charts and their interpretation. Fortran Preliminaries;
	5-9-2022 to 10-9-2022	Integer and floating point arithmetic expression, built in functions executable and non-executable statements,
	12-9-2022 to 17-9-2022	input and output statements, Formats, I.F. DO and GO TO statements,
	19-9-2022 to 24-9-2022	Dimesion arrays statement function and function subprogram
	26-9-2022 to 1-10-2022	**Unit-II Thermodynamics-I:** Second law of thermodynamics, Carnot theorem,
	3-10-2022 to 8-10-2022	Absolute scale of temperature, Absolute Zero, Entropy, show that dQ/T=O, T-S diagram
	10-10-2022 to 19-10-2022	Nernst heat law, Joule's free expansion, Joule Thomson (Porous plug) experiment.
	27-10-2022 to 5-11-2022	Joule - Thomson effect. Liquefication of gases. Air pollution due to internal combustion Engine.

	7-11-2022 to 12-11-2022 14-11-2022 to 19-11-2022 21-11-2022 to 26-11-2022 28-11-2022 to 3-12-2022 5-12-2022 to 10-12-2022	**Unit-III Thermodynamics-II:** Derivation of Clausius - Claperyron latent heat equation. Phase diagram and triple point of a substance. Development of Maxwell thermodynamical relations. Application of Maxwell relations in the derivation of relations between entropy, specific heats and thermodynamic variables. Thermodynamic functions : Internal energy (U), Helmholtz function (F), Enthalpy (H), Gibbs function (G) and the relations between them
	12-12-2022 to 17-12-2022, 17-12-2022 onwards	Assignments, Viva, Test, Revision MDU examination