

NAME: Mrs. HIMANSHI

PHYSICS DEPARTMENT

Class: B.Sc. II N.M.

TEACHING PLAN

(Sem III)

Computer Programming and  
Thermodynamics

July:

- 1) Introduction to thermodynamics
- 2) Explanation of first and second law of thermodynamics.
- 3) Carnot engine and Carnot theorem
- 4) Numerical problems on efficiency of Carnot e.

August:

- 1) Kelvin's thermodynamic scale of temperature
- 2) Explanation of Joule Thomson Porous Plug experiment \* Test
- 3) Discussion on air pollution.
- 4) Introduction to Entropy and T-S diagram
- 5) Nernst heat law
- 6) Explanation of Liquefaction of gases

September:

- 1) Derivation of Clausius-Clapeyron latent heat eqn
- 2) Explanation of phase diagram and triple point of a substance. \* Test
- 3) Development of Maxwell thermodynamical relations and its application for entropy relations.
- 4) Explanation of specific heats and thermodynamic variables. Thermodynamic functions

October:

- 1) Introduction to Computer organization.
- 2) Binary representation and Algorithm development
- 3) flow charts and their interpretation
- 4) Fortran Preliminaries.
- 5) Integer and floating point arithmetic expressions
- 6) Built in functions, executable and non-executable statements, input and output statements.

November:

- 1) Formats, IF, DO and GOTO statements
- 2) Dimension arrays, Statement function and function subprogram.

- \* Test
- \* Assignment

Himanshi  
1.8/18