

Name of Assistant/Associate Professor:-Mr. Amit Dhiman

Class:-B.Sc. II

Subject:-Physics (Paper 1)

Lesson Plan: 13 weeks (from Sept. 2023 to Dec. 2023)

Week 1
Chapter 1 :Prerequisites
Assignments
<ul style="list-style-type: none">• Binary representation• Algorithm development• Flowcharts and their interpretation
Week 2
Chapter 1 :Prerequisites
Assignments
<ul style="list-style-type: none">• Fortran preliminaries• Executable and non-executable statement
Week 3
Chapter 1 :Prerequisites
Assignments
<ul style="list-style-type: none">• Input and output statements• formats• IF statement
Week 4
Chapter 1 :Prerequisites
Assignments
<ul style="list-style-type: none">• DO statement• GO TO statement• Dimension and array• Statement function and function subprogram
Week 5
Chapter 2 :Prerequisites
Assignments
<ul style="list-style-type: none">• Fortran program development• Fortran Programming• To Print all natural no. between given limit
Week 6
Chapter 2 :Prerequisites
Assignments
<ul style="list-style-type: none">• Range of the set of given numbers• Ascending and descending order• Mean and standard deviation
Week 7
Chapter 2 :Prerequisites
Assignments
<ul style="list-style-type: none">• Least square fitting of curve• Roots of quadratic equation• Least square fitting of curve

Week 8

Chapter 2 :Prerequisites

Assignments

- Product of two matrices
- Trapezoidal Rule
- Simpson 1/3 Rule
- Revision
- Problems by students

Week 9

Assignments

- Test
- Basics of Thermodynamics
- Joule-Thomson effect and J-T porous plug experiment
- Analytical treatment of J-T effect
- Kelvin scale of temperature

Week 10

Chapter 3 :Prerequisites

Assignments

- Specific heat of saturated vapour
- Entropy of a perfect gas
- Derivation of latent heat equation

Week 11

Chapter 3 and 4 :Prerequisites

Assignments

- Phase diagram and triple point
- Thermodynamical functions
- Derivation of Maxwell thermodynamic relations

Week 12

Chapter 4 :Prerequisites

Assignments

- Relation b/w two specific heats of gas
- Derivation of clausius-claperyon equation
- Variation of intrinsic energy with volume

Week 13

Chapter 4 :Prerequisites

Assignments

- Derivation of Stefan's law
- Adiabatic Compression and expansion of gas
- Deduction of theory of J-T effect
- Computer organization
- Problems
- Revision
- Complete Syllabus Test