Lesson Plan (2025-2026)

Name : Smt. Laxmi
Discipline : Common for all branches
Semester : 1st Sem.
Subject: : Applied Physics-1
Code : 220013
Duration : 04/08/25 - 26/11/25
Work Load : 2 Lectures, and 2 practical per week

Lecture No.	Theory	Practical	Practical
	Topic	Day	Topic
1.	Introduction about physics Physical quantities Units - fundamental and derived units Physical quantities Units - fundamental and derived units FPS, CGS and SI units	1.	Introduction about lab To find the diameter of solid cylinder using vernier calliper
2.	Dimensions and dimensional formulae of physical quantities Dimensional formulae Distance, area, volume, velocity, acceleration, momentum, force, work, power, energy, surface tension, stress, strain, moment of inertia etc.		
3.	Principle of homogeneity of dimensions and its application. Limitations of dimensional analysis	2.	Revision & Checked practical note book
4.	Scalar and vector quantities – examples, Addition of Vectors,		
5.	Triangle and Parallelogram law, Vector Product, Definition of Distance ,Displacement, Speed, Velocity, Acceleration, Force	3.	To find the diameter of wire using screw gauge.
6.	Newton's laws of motion and Conservation of linear momentum		
7.	Force, Resolution of force , Impulse and its examples	4.	Revision & Checked practical note book
8.	Introduction to Circular motion , Angular displacement, angular velocity, angular Acceleration , Centripetal and centrifugal forces		
9.	Relation between linear and angular velocity.	5.	To find the diameter of wire using screw gauge.
10.	Banking of roads (application of centrifugal force)		
11.	Rotational motion with examples, Definition of torque and angular momentum and their example	6.	Revision & Checked practical note book
12.	Moment of inertia and its physical significance		
13.	Work, its units and types with examples Transformation of energy	7.	To find the thickness of paper sheet using screw gauge
14.	Energy and its units: Kinetic energy and potential energy		
15.	Energy conservation law in case of freely falling	8.	Revision & Checked

	body		practical note book
16.	Power (definition, formula and units),.Simple numerical problem on power Energy and its units		
17.	Energy conservation law in case of freely falling body	9.	To determine the thickness of glass strip using a spherometer
18.	Definition of deforming force restoring force, elastic body & plastic body		
19.	Stress and strain and their types, Hooke's law,	10.	Revision & Checking of practical note books
20.	Different types of module of elasticity Pressure, Pascal's law		
21.	Surface tension: definition, its units, surface tension , Effect of temperature on Surface tension	**11.**	To determine radius of curvature of a given spherical surface by a spherometer
22.	Viscosity: definition, units and effect of temp.		
23.	Definition of heat and temperature,	12.	To verify parallelogram law of forces
24.	Difference between heat and temperature		
25.	Principles of measurement of temperature,	13.	To determine the atmospheric pressure at the place by using Fprtin's Barometer
26.	Different scales of temperature , Relationship between different temperature scales		
27.	Modes of transfer of heat Conduction, convection and radiation	**14.**	To measure room temperature using thermometer and converting it into different temperature scale.
28.	Properties of heat radiation		
29.	Principle and working of mercury thermometer	15.	Revision & Checking of practical note books

Note: There will be class Tests, Assignments, Sessional Exams and Quizzes etc. will be given as per Academ Calendar.

Laxmi
28/07/25

28/7/25
PAC Committee
Member - 1
(Sh. Narender Rana)

28/7/25
PAC Committee
Member - 2
(Smt. Sonia)

Jyoti 28/7/25
PAC Committee
Member – 3
(Dr. Jyoti Gupta)