<div align="center">**Lesson Plan**</div>

Name of Faculty : Kismat

Discipline : Applied Science

Semester : I

Subject : Applied Physics-I

Lesson Plan Duration: 15 Week

Wee k	Theory		Practical	
	Lectur e Day	**Topic(Including Assignments)**	**Practic al Day**	**Topic**
Ist	1	**Unit1:- Unit and Dimensions** Definition of Physics,Physical quantities:Fundamental and Derived	1	1) Familiarization of measuring instruments and their parts (e.g.,Vernier Caliper, screw gauge spherometer ,travelling microscope etc.)(Group-1)
	2	Units: Fundamental and Derived,system of units: CGS,FPS,MKS,SI	2	1) Familiarization of measuring instruments and their parts (e.g.,Vernier Caliper ,screw gauge spherometer ,travelling microscope etc.)(Group-2)
2nd	1	Dimensions,dimensional formulae and SI units of physical quantities:Distance,displacement,area,volume,density,velocity,accelerati on,linear momentum,force,impulse,work,power,energy,pressure,surface tension,stress,strain	1	2)To find diameter of solid cylinder using a vernier caliper(Group-1)
	2	Dimensional equation,principle of Homogeneity of dimensional equation.Application of dimensional analysis	2	2)To find diameter of solid cylinder using a vernier caliper(Group-2)
3rd	1	Checking of correctness of physical equation, conversion of system of units(Force ,work, acceleration**)**	1	3) To find internal diameter and depth of a beaker using a vernier caliper and hence find its volume(Group-1)
	2	**UNIT2:- Force and Motion** Scalar and vector quantities:Definition and examples ,representation of vector,types of vector(unit vector,position vector,cointial vector,collinear vector,coplanar vector)	2	3) To find internal diameter and depth of a beaker using a vernier caliper and hence find its volume(Group-2)
4th	1	Vector Algebra:Addition of vector,Triangle and parallelogram law(statement and formula only)	1	4) To find the diameter of a wire using a screw gauge.(Group-1)
	2	Scalar and Vector product(statement and formula only),Force and its units,Resolution of force(statement and formula only)	2	4) To find the diameter of a wire using a screw gauge.(Group-1)

5th	1	Newton's law of Motion(statement and examples)	1	Revision and Viva(Group-1)
	2	Linear momentum,Law of conservation of linear momentum(statement and example),Impulse Revision of syllabus	2	Revision and Viva(Group-2)
6th	1	First Sessional Test(Tentative)	1	First Sessional Test(Tentative)
	2	First Sessional Test(Tentative	2	First Sessional Test(Tentative
7th	1	Circular Motion: Definition of Angular Displacement,Angular velocity,Angular acceleration,Frequency,Time period, Relation between linear and angular velocity	1	5) To find the thickness of a paper using screw gauge(Group-1)
	2	Centripetal and centrifugal force(Definition and formula only),Application of centripetal force in banking of road	2	5) To find the thickness of a paper using screw gauge(Group-2)
8th	1	Rotational Motion :Definition with example, Definition of Torque angular momentum, Moment of inertia and its physical significance	1	6) To determine the thickness of a glass strip using a spherometer(Group-1)
	2	**Unit3:- Work,Power and Energy**Work:definition,symbol,formula and SI unit ,Types of work(zero work,positive work and negative work)with example	2	6) To determine the thickness of a glass strip using a spherometer(Group-2)
9th	1	Friction:Definition and its simple daily life applications ,Power:Definition formula and units,Energy: definition and its SI units,Example of transformation of energy.	1	7) To determine the radius of curvature of a given spherical surface by a spherometer(Group-1)
	2	Kinetic Energy: Definition example formula and its derivation,Potential Energy: Definition example formula and its derivation	2	7) To determine the radius of curvature of a given spherical surface by a spherometer(Group-2)
10th	1	Law of conservation of Mechanical energy for freely falling body(with derivation),simple numerical problems based on formula of power and energy	1	8) To verify parallelogram law of force.(Group-1)
	2	Revision of above topics	2	8) To verify parallelogram law of force.(Group-2)
11th	1	Second Sessional Tests(Tentative)	1	Second Sessional Tests(Tentative)
	2	Second Sessional Tests(Tentative)	2	Second Sessional Tests(Tentative)
12th	1	**Unit4:- Properties of Matter** Elasticity and Plasticity – definition ,deforming force, restoring force ,example of elastic and plastic body, Definition of stress and strain ,Hook's law ,Modules of elasticity	1	9) To determine the atmospheric pressure at a place using

				Fortin's Barometer(Group-1)
	2	Pressure- Definition, atmospheric pressure, gauge pressure, absolute pressure, Pascal's law ,Surface Tension- Definition, SI unit applications of surface tension, effect of temperature on surface tension	2	9) To determine the atmospheric pressure at a place using Fortin's Barometer(Group-2)
13th	1	Viscosity: Definition, unit, examples, effect of temperature on viscosity	1	10) To determine force constant of a spring using Hook's Law(Group-1)
	2	**Unit5: Heat and Temperature**Definition of Heat and Temperature (on the basis of Kinetic theory),Difference between Heat and Temperature	2	10) To determine force constant of a spring using Hook's Law(Group-2)
14th	1	Principle and working of Mercury Thermometer, Modes of Transfer of heat : conduction, convection and Radiation with examples.	1	11) Measuring Room temperature with the help of a Thermometer and its conversion in different scales(Group-1)
	2	Properties of Heat Radiations , Different scales of Temperature and their relationship	2	11) Measuring Room temperature with the help of a Thermometer and its conversion in different scales(Group-2)
15th	1	Third Sessional Test(Tentative)	1	Third Sessional Test(Tentative)
	2	Third Sessional Test(Tentative)	2	Third Sessional Test(Tentative)
16th	1	Revision of syllabus	1	Revision and Viva voce(Group-1)
	2	Revision of syllabus	2	Revision and Viva voce(Group-1)