

C.R. Polytechnic ,Rohtak				
Name of Faculty: Ashok Deswal (THEORY) & Ashok Deswal(PRACTICAL)				
Discipline: Civil & Mechanical				
Semester: 1				
Subject: APPLIED Physics-I				
Lesson Plan Duration:64 DAYS				
Week	Theory		Practical	
	Lecture Day	Topic	Practical Day	Topic
Week 1	Day1	Physical quantities	day 1	Familiarisation with vernier calliper, screw gauge and spherometer and determinatiin of their vernier constants and least constants
	Day2	Fundamental and Derived units		
	Day3	Systems of units(CGS,MKS and SI units)		
	Day4	Dimension and dimension formulae of area, volume		
Week 2	Day5	Velocity, accelaration	day 2	TEST
	Day6	Momentum, force		
	Day7	Impulse, work		
	Day8	Power,energy, surface tension		
Week 3	Day 9	Coefficient of viscosity, stress, strain	day3	To find diameter of solid cylinder using a vernier calliper
	Day10	Moment of interia, gravitational constant		
	Day11	Principle of homogeneity		
	Day12	Dimensional equation and their applications		
Week 4	Day13	Conversion from one system of unit into another	day4	TEST
	Day14	Conversion from one system of units to other for density		
	Day15	Conversion from one system into other for force		
	Day16	Conversion from one unit into other for pressure		
	Day17	Conversion from one unit other for work, power	day5	To find diameter of hollow cylinder using a vernier calliper

week 5	Day18	Conversion from one unit into other for energy		TEST
	Day19	Conversion from one unit into other for velocity and acceleration		
	Day20	Limitations of dimensional analysis		
week 6	Day21	Scalar and vector quantities - examples	day6	TEST
	Day22	Representation of vector, triangle law		
	Day23	Parallelogram law		
	Day24	Force, resolution and composition of force		
week7	day25	Friction, laws of friction	Day 7	To find area of cross- section of wire using screw gauge
	day26	Types of friction		
	day27	Coefficient of friction		
	day28	Newtons law of motion		
week 8	day29	Concept of momentum, Newtons 3rd law of motion	day 8	TEST
	day30	Conservation of momentum		
	day31	Recoil of a gun		
	day32	Impulse and impulsive force		
week 9	day33	Circular motion, definition of angular displacement	day 9	To find thickness of glass strip using spherometer
	day34	Angular velocity, angular acceleration		
	day35	Frequency and time period		
	day36	Relation b/w linear and angular velocity		
week 10	day37	Linear acceleration and angular acceleration	day10	TEST
	day38	Relation b/w frequency and time period		
	day39	Centripetal force and centrifugal force		
	day40	Banking of roads with derivation		
week 11	day41	Rotational motion	day11	To find radius of curvature of spherical surface using spherometer
	day42	Definition of torque, moment of inertia		
	day43	Radius of gyration		
	day44	Derivation of rotational kinetic energy		
	day45	Derivation of angular momentum	day12	TEST

week 12	day46	Conservation of angular momentum		
	day47	Work, definition & its units		
	day48	Examples of zero work, positive work and negative work		
week 13	day49	Power definition and its units	day13	To verify parallelogram law of forces
	day50	Energy definition and its units		
	day51	Types of energy, kinetic energy and examples and derivation		
	day52	Potential energy and its examples and derivation		
week 14	day53	Principle of conservation of mechanical energy(for freely falling bodies)	day14	TEST
	day54	Transformation of energy from one form to another		
	day55	Elasticity, stress and strain		
	day56	Types of modulus of elasticity, pressure and its units		
week 15	day57	Gauge pressure, absolute pressure, atmospheric pressure	day15	To determine atmospheric pressure at a place using Fortin 's Barometer
	day58	Surface tension and its units, capillarity		
	day59	Fluid motion, streamline flow and turbulent pressure		
	day60	Viscosity, coefficient of viscosity, effect of temperature and viceversa		
	day61	Difference between heat and temp. On the basis of K. E. Of molecules	Day 16	TEST
	day 62	Principles of measurement of temp. and different scales of temp.		
	day 63	Modes of transfer of heat(conduction, convection and radiation)		
week 16	day64	Thermal conductivity, coefficient of thermal conductivity		



