

# Lesson Plan

## Environmental Studies And Disaster Management

Expert

Week	Theory/Practical	
	Lecture Day	Topic Including(assignment/Test)
Ist	1	<b>Unit1:- Introduction</b> Basics of Ecology , Eco system Concept and sustainable development
	2	Sources ,advantages ,disadvantages of renewable and non-renewable energy
IIInd	1	Rain Water Harvesting
	2	Deforestation – its effects and control measures
IIIrd	1	<b>Unit2:- Air and Noise Pollution</b> Air Pollution: Source of Air Pollution
	2	Effect of Air Pollution on Human Health, Economy, Air Pollution control Methods
IVth	1	Noise Pollution: Sources of Noise Pollution, unit of noise ,Effect of Noise Pollution, Acceptable Noise Level, different Methods of minimizing Noise Pollution
	2	Revision of Above topics
Vth	1	<b>Unit3:- Water and Soil Pollution</b> Water Pollution: Impurities in water, Cause of water Pollution
	2	Sources of water Pollution. Effect of water pollution on human health
VIth	1	First Sessional Test(Tentative)
	2	First Sessional Test(Tentative)
VIIth	1	Concept of DO ,BOD, COD
	2	Prevention of water Pollution- water treatment processes
VIIIth	1	Sewage treatment ,Water quality standard
	2	Soil Pollution: Sources of soil Pollution
IXth	1	Effect and control of soil pollution
	2	Type of solid waste- House hold, Industrial, Agricultural, Bio-Medical, Disposal of Solid waste.
Xth	1	Solid waste management E-waste ,E-waste management
	2	<b>Unit4:- Impact of Energy Usage on Environment</b> Global Warming ,Green House Effect , Depletion of Ozone Layer
XIth	1	Second Sessional Tests(Tentative)
	2	Second Sessional Tests(Tentative)
XIIth	1	Acid Rain .Eco Friendly Material, Recycling of Material, Concept of Green Building
	2	Concept of Carbon credit and Carbon Foot Print
XIIIth	1	<b>Unit5:- Disaster Management</b> A Different type of Disaster ,Natural Disasters such as Flood ,Cyclone ,Earth Quake and Landslides etc.

	<b>2</b>	Manmade Disasters such as Fire, Industrial Pollution, Nuclear Disasters, biological Disasters.
<b>XIVth</b>	<b>1</b>	Accidents(Air , Sea Rain and Road) , Structural Failures (Building and Bridges) , War and Terrorism
	<b>2</b>	B Disaster Preparedness Disaster Preparedness plan : Prediction ,Early warnings and safety measures of Disaster Psychological Response and Management (Trauma, Stress, Rumour and Panic)
<b>XVth</b>	<b>1</b>	Third Sessional Test(Tentative)
	<b>2</b>	Third Sessional Test(Tentative)
<b>XVIth</b>	<b>1</b>	Revision of above Syllabus
	<b>2</b>	Revision of above Syllabus
<b>XVIIth</b>	<b>1</b>	Revision of above Syllabus
	<b>2</b>	Revision of above Syllabus

**Government Polytechnic Panchkula, Sector**

**Lesson Plan**

Name- Dr. Rakesh Saini

Discipline- Applied Science

Semester – 1<sup>st</sup> Sem

Subject – Applied Chemistry

Duration – 16 weeks (2025-26)

Work load (per week):- lectures-03 Practical :02

Week	Theory		Practical	
	Lect. day	Topic	Lect. day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	UNIT 1 Atomic Structure, Periodic Table and Chemical Bonding.	1 <sup>st</sup>	To prepare standard solution of oxalic acid.
	2 <sup>nd</sup>	Bohr's model of atom (qualitative treatment only), dual character of matter: derivation of de-Broglie's equation,		
	3 <sup>rd</sup>	Heisenberg's Principle of Uncertainty,	2 <sup>nd</sup>	To prepare standard solution of oxalic acid.
2 <sup>nd</sup>	1 <sup>st</sup>	modern concept of atomic structure: definition of orbitals, shapes of s, p and d-orbitals, quantum numbers and their	1 <sup>st</sup>	To prepare standard solution of oxalic acid.

	2 <sup>nd</sup>	<p><i>Electronic configuration: Aufbau and Pauli's exclusion principles and Hund's rule, electronic configuration of elements up to atomic number 30.</i></p>		
	3 <sup>rd</sup>	<p><b>Modern Periodic law and Periodic table,</b></p>	2 <sup>nd</sup>	<p><i>To prepare standard solution of oxalic acid.</i></p>
3 <sup>rd</sup>	1 <sup>st</sup>	<p><i>classification of elements into s, p, d and f-blocks, metals, non-metals and metalloids (periodicity in properties excluded).</i></p>	1 <sup>st</sup>	<p><i>To dilute the given KMnO<sub>4</sub> solution</i></p>
	2 <sup>nd</sup>	<p><i>Chemical bonding: cause of bonding, ionic bond, covalent bond, and metallic bond (electron sea or gas model), Physical properties of ionic, covalent and metallic substances.</i></p>		<p><i>To dilute the given KMnO<sub>4</sub> solution</i></p>
	3 <sup>rd</sup>	<p><b>Revision</b></p>	2 <sup>nd</sup>	
3 <sup>rd</sup>	1 <sup>st</sup>	<p><b>UNIT II</b></p> <p><b>Metals and Alloys:</b> Metals: mechanical properties of metals such as conductivity, elasticity, strength and stiffness, luster, hardness, toughness, ductility, malleability, brittleness, and impact resistance and their uses.</p>	1 <sup>st</sup>	<p><i>To dilute the given KMnO<sub>4</sub> solution</i></p>
	2 <sup>nd</sup>	<p><i>Definition of a mineral, ore, gangue, flux and slag.</i></p>	2 <sup>nd</sup>	<p><i>To dilute the given KMnO<sub>4</sub> solution</i></p>

	3 <sup>rd</sup>	Metallurgy of iron from haematite using a blast furnace. Commercial varieties of iron.	1 <sup>st</sup>	To find out the strength in grams per litre of an unknown solution of sodium hydroxide  using a standard (N/10) oxalic acid solution.
4 <sup>th</sup>	1 <sup>st</sup>	Alloys: definition, necessity of making alloys, composition, properties and uses of duralumin and steel.	2 <sup>nd</sup>	To find out the strength in grams per litre of an unknown solution of sodium hydroxide  using a standard (N/10) oxalic acid solution.
	2 <sup>nd</sup>	Heat treatment of steel-normalizing, annealing, quenching, tempering.	1 <sup>st</sup>	To find out the strength in grams per litre of an unknown solution of sodium hydroxide  using a standard (N/10) oxalic acid solution.
	3 <sup>rd</sup>	UNIT III  Water, Solutions, Acids and Bases	2 <sup>nd</sup>	To find out the strength in grams per litre of an unknown solution of sodium hydroxide  using a standard (N/10) oxalic acid solution.
	4 <sup>th</sup>	Solutions: definition, expression of the concentration of a solution in percentage (w/w, w/v and v/v), normality, molarity and molality and ppm. Simple problems on solution preparation.	1 <sup>st</sup>	To find out the total alkalinity in parts per million (ppm) of a water sample with the help of a standard sulphuric acid

				<i>solution.</i>
5 <sup>th</sup>	1 <sup>st</sup>	Arrhenius concept of acids and bases, strong and weak acids and bases, pH value of a solution and its significance, pH scale. Simple numerical problems on pH of acids and bases.	2 <sup>nd</sup>	To find out the total alkalinity in parts per million (ppm) of a water sample with the help of a standard sulphuric acid solution.
	2 <sup>nd</sup>	Hard and soft water, causes of hardness of water, types of hardness – temporary and permanent hardness, expression of hardness of water, ppm unit of hardness; disadvantages of hard water; removal of hardness: removal of temporary hardness by boiling and Clark's method;		To determine the total hardness of given water sample by EDTA method
	3 <sup>rd</sup>	removal of permanent hardness of water by Ion-Exchange method; boiler problems caused by hard water: scale and sludge formation, priming and foaming, caustic embrittlement; water sterilization by chlorine, UV radiation and RO.		To determine the total hardness of given water sample by EDTA method
6 <sup>th</sup>	1 <sup>st</sup>	<b>UNIT IV</b> <b>Fuels and Lubricants</b> 4.1 Fuels: definition and classification of higher and lower calorific values, units of calorific value, characteristics of an ideal fuel.		To determine the amount of total dissolved solids(TDS) in ppm in a given sample of water gravimetrically
	2 <sup>nd</sup>	Petroleum: composition and refining of petroleum;		To determine the amount of total dissolved solids(TDS) in ppm in a given

				sample of water
				gravimetrically
	3 <sup>rd</sup>	composition, properties and uses of CNG, PNG, LNG, LPG; relative advantages of liquid and gaseous fuels over solid fuels. Scope of hydrogen as future fuel.		To determine the pH of different solutions using a digital pH meter.
7 <sup>th</sup>	1 <sup>st</sup>	Lubricants- Functions and qualities of a good lubricant, classification of lubricants with examples;		To determine the pH of different solutions using a digital pH meter.
	2 <sup>nd</sup>	Lubrication mechanism (brief idea only); physical properties (brief idea only) of a lubricant: oiliness, viscosity, viscosity index, flash and fire point, ignition temperature, pour point.		To determine the calorific value of a solid/liquid fuel using a Bomb calorimeter.
	3 <sup>rd</sup>	Lubrication mechanism (brief idea only); physical properties (brief idea only) of a lubricant: oiliness, viscosity, viscosity index, flash and fire point, ignition temperature, pour point.		To determine the calorific value of a solid/liquid fuel using a Bomb calorimeter.

8 <sup>th</sup>	1 <sup>st</sup>	<b>UNIT V</b>			
	2 <sup>nd</sup>	<b>Polymers and Electrochemistry</b>			To determine the viscosity of a lubricating oil using a Redwood viscometer
	3 <sup>rd</sup>	<i>Polymers and Plastics: definition of polymer, classification, addition and condensation</i>  <i>polymerization; preparation properties and uses of polythene, PVC, Nylon-66, Bakelite;</i>			To determine the viscosity of a lubricating oil using a Redwood viscometer
9 <sup>th</sup>	1 <sup>st</sup>	definition of plastic, thermoplastics and thermosetting polymers; natural rubber and			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab.
	2 <sup>nd</sup>	neoprene, other synthetic rubbers (names only).			
	3 <sup>rd</sup>	Corrosion: definition, dry and wet corrosion			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab.
10 <sup>th</sup>	1 <sup>st</sup>	factors affecting rate of corrosion, methods of			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab.
	2 <sup>nd</sup>	prevention of corrosion			
	3 <sup>rd</sup>	hot dipping, metal cladding, cementation, quenching, cathodic protection methods			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab.
11 <sup>th</sup>	1 <sup>st</sup>	methods of			
	2 <sup>nd</sup>	prevention of corrosion—hot dipping, metal cladding, cementation, quenching, cathodic protection methods		Viva Voice	
	3 <sup>rd</sup>	Introduction and application of nanotechnology: nano-materials and their classification, applications of nanotechnology in various engineering applications		Viva Voice	
12 <sup>th</sup>	1 <sup>st</sup>	<b>Revision</b>			
	2 <sup>nd</sup>	<b>Revision</b>		Viva Voice	



13 <sup>th</sup>	3 <sup>rd</sup>	<b>Revision</b>	Viva Voice
	1 <sup>st</sup>	<b>Revision</b>	
	2 <sup>nd</sup>	<b>Revision</b>	Viva Voice
14 <sup>th</sup>	3 <sup>rd</sup>	<b>Revision</b>	Viva Voice
	1 <sup>st</sup>		Viva Voice
	2 <sup>nd</sup>	<b>Revision</b>	Viva Voice
15 <sup>th</sup>	3 <sup>rd</sup>	<b>Revision</b>	Viva Voice
	1 <sup>st</sup>	<b>Revision</b>	Revision and file checking
	2 <sup>nd</sup>		Revision and file checking
16 <sup>th</sup>	3 <sup>rd</sup>	<b>Revision</b>	
	1 <sup>st</sup>	<b>Revision</b>	Revision and file checking
	2 <sup>nd</sup>	<b>Revision</b>	Revision and file checking

Government Polytechnic Sector 26 , Panchkula				
Name of Faculty: ABHIMANYU				
Discipline: Mechanical,Arch.,Electrical				
Semester: 1				
Subject: APPLIED Physics-I				
Lesson Plan Duration:64 DAYS				
Week	Theory		Practical	
	Lecture Day	Topic	Practical Day	Topic
Week1	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		





# **Lesson Plan**

Name of the Faculty : Mrs. Nidhi

Discipline: Applied Science

Year : 1<sup>st</sup> Year

Subject : Communication Skill

Lesson Plan: 15 Weeks Sep 2023-Dec 2023

Workload (lecture/practical)perweek(inhours):Lectures-02, practicals-02

<b>Wee k</b>	<b>Theory</b>		<b>Practical</b>	
	<b>Lecture  day</b>	<b>Topic(including assignmenttest)</b>	<b>Practical  Day  (1lab=2 hours)</b>	<b>Topic</b>
<i>1st</i>	<i>1st</i>	<i>Techniques of reading: Skimming and Scanning</i>		Reading Reading Practice of lessons in the Lab Activity classes.
	<i>2nd</i>	<i>Extensive and Intensive Reading: Textual Study</i>		Reading Reading Practice of lessons in the LabActivity classes.
<i>2nd</i>	<i>3rd</i>	<i>Homecoming – R.N. Tagore</i>		Reading Reading Practice of lessons in the Lab Activity classes.
	<i>4th</i>	<i>Life Sketch of Sir Mokshagundam Visvesvarayya</i>		Reading Reading Practice of lessons in the LabActivity classes.

3rd	5th	<i>Homecoming – R.N. Tagore</i>		Reading Reading Practice of lessons in the Lab Activity classes.
		<i>Life Sketch of Sir Mokshagundam Visvesvarayya</i>		Reading Reading Practice of lessons in the LabActivity classes.



4 <sup>th</sup>	7 <sup>th</sup>	<i>Narayan Murthy's speech at LBSNA, Dehradun</i>		Comprehension exercises of unseen passages along with the lessons prescribed.
	8 <sup>th</sup>	<i>UNIT II Fundamentals of Communication</i>		<i>Comprehension exercises of unseen passages along with the lessons prescribed.</i>
5 <sup>th</sup>	9 <sup>th</sup>	<i>Concept and Process of Communication,</i>		Vocabulary enrichment and grammar exercises based on the selected readings.
	10 <sup>th</sup>	<i>Types of Communication (Verbal Communication)</i>		Vocabulary enrichment and grammar exercises based on the selected readings.
6 <sup>th</sup>	11 <sup>th</sup>	<i>Barriers to Communication</i>		Reading aloud Newspaper headlines and important articles.
	12 <sup>th</sup>	<i>Speaking Skill: Significance and essentials of Spoken Communication</i>		Reading aloud Newspaper headlines and important articles.
7 <sup>th</sup>	13 <sup>th</sup>	<i>Listening Skill: Significance and essentials of Listening</i>		Fundamentals of Communication i. Introducing oneself, others and leave- taking(talking about yourself)
	14 <sup>th</sup>	<i>UNIT III Grammar and Usage</i>		Fundamentals of Communication i. Introducing oneself, others and leave- taking(talking about yourself)
8 <sup>th</sup>	15 <sup>th</sup>	<i>UNIT III Grammar and Usage</i>		Just a minute (JAM) sessions: Speaking extempore for one minute



	18 <sup>th</sup>	<i>Pronouns</i>		Just a minute (JAM) sessions: Speaking extempore for one minute on given topics
10 <sup>th</sup>	19 <sup>th</sup>	<i>Articles</i>		Situational Conversation: Offering- Responding to offers; Congratulating; Apologising and Forgiving; Complaining; Talking about likes and dislikes, Self- introduction Mock Interviews.
	20 <sup>th</sup>	<i>Verbs(Main and Auxiliary)</i>		
11 <sup>th</sup>	21 <sup>st</sup>	<i>Tenses</i>		Grammar and Usage i. Written and Oral Drills will be undertaken in the class to facilitate holistic linguistic competency among learners.
	22 <sup>nd</sup>	<i>UNIT IV Writing Skills</i>		<i>Grammar and Usage i. Written and Oral Drills will be undertaken in the class to facilitate holistic linguistic competency among learners.</i>
12 <sup>th</sup>	23 <sup>rd</sup>	<i>Significance, essentials and effectiveness of</i>		Exercises on the prescribed grammar topics.

		<i>Written Communication</i>		Exercises on the prescribed grammar topics.
	<i>24<sup>th</sup></i>	<i>Notice Writing</i>		
<i>13<sup>th</sup></i>	<i>25<sup>th</sup></i>	<i>Official Letters and E-mails.</i>		Exercises on the prescribed grammar topics.
	<i>26<sup>th</sup></i>	<i>Official Letters and E-mails.</i>		

14 <sup>th</sup>	27 <sup>th</sup>	Paragraph Writing		Exercises on the prescribed grammar topics.
	28 <sup>th</sup>	Netiquettes		<i>Writing Skills</i> <i>i. Students should be given Written Practice in groups so as to inculcate team-spirit and collaborative learning</i>
15 <sup>th</sup>	29 <sup>th</sup>	<b>Revision</b>		Group exercises on writing paragraphs on given topics.
	30 <sup>th</sup>	<b>Revision</b>		Group exercises on writing paragraphs on given topics.
16 <sup>th</sup>	31 <sup>st</sup>	<b>Revision</b>		Opening an e-mail account, receiving and sending emails
	32 <sup>nd</sup>	<b>Revision</b>		Opening an e-mail account, receiving and sending emails

**Government Polytechnic Panchkula, Sector**

**Lesson Plan**

Name- Ms. Namrata

Discipline- Applied Science

Semester – 1<sup>st</sup> Sem

Subject–Applied

Duration – 15 weeks (2023-24)

Work load (per week)-: lectures-04

Week	Theory			
	Lect. day	Topic		
1 <sup>st</sup>	1 <sup>st</sup>	<b>Unit-1</b> Complex Numbers: definition of complex number, real and imaginary parts of a complex number,		
	2 <sup>nd</sup>	real and imaginary parts of a complex number,,		
	3 <sup>rd</sup>	Polar and Cartesian Form and their inter conversion, Conjugate of a complex		
	4 <sup>th</sup>	Logarithms and its basic properties		
2 <sup>nd</sup>	1 <sup>st</sup>	Logarithms and its basic properties		
	2 <sup>nd</sup>	<b>Revsion unit-1</b>		
	3 <sup>rd</sup>	<b>Unit-2</b> Meaning of npr&ncr (mathematical expression		
	4 <sup>th</sup>	Binomial theorem (without proof) for positive integral index		
3 <sup>rd</sup>	1 <sup>st</sup>	first binomial approximation with application to engineering problems.		
	2 <sup>nd</sup>	Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of equations (upto 2 unknowns) by Crammer's rule,		
	3 <sup>rd</sup>	Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of equations (upto 2 unknowns) by Crammer's rule,		,
	4 <sup>th</sup>	Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of		

		equations (upto 2 unknowns) by Crammer's rule,		
3 <sup>rd</sup>	1 <sup>st</sup>	definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).		
	2 <sup>nd</sup>	definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).		
	3 <sup>rd</sup>	<b>Revision Unit- 2</b>		
	4 <sup>th</sup>	<b>Revision Unit- 2</b>		
4 <sup>th</sup>	1 <sup>st</sup>	<b>Unit-3</b> Concept of angle, measurement of angle in degrees, grades, radians and their conversions.		
	2 <sup>nd</sup>	<b>Unit-3</b> Concept of angle, measurement of angle in degrees, grades, radians and their conversions.		
	3 <sup>rd</sup>	T-Ratios of Allied angles (without proof), Sum, Difference formulae and their applications (without proof). Product formulae (Transformation of product to sum, difference and vice versa		
	4 <sup>th</sup>	T-Ratios of Allied angles (without proof), Sum, Difference formulae and their applications (without proof). Product formulae (Transformation of product to sum, difference and vice versa		
5 <sup>th</sup>	1 <sup>st</sup>	Applications of Trigonometric terms in engineering problems such as to find an angle of elevation, height, distance etc.		<b>UNIT V Geometry of Circle and Software Circle Introduction</b>
	2 <sup>nd</sup>	Applications of Trigonometric terms in engineering problems such as to find an angle of elevation, height, distance etc.		General equation of a circle and its characteristics. To find the equation of a circle, given:
	3 <sup>rd</sup>	<b>Revision Unit-3</b>		Centre and radius
	4 <sup>th</sup>	<b>Revision Unit-3</b>		Three points lying on it
6 <sup>th</sup>	1 <sup>st</sup>	<b>UNIT IV Co-ordinate Geometry Introduction</b>		Coordinates of end points of a diameter
	2 <sup>nd</sup>	Cartesian and Polar co-ordinates (two dimensional), Distance between two points, mid-point, centroid of vertices		<b>MATLAB Or SciLab software Introduction</b>

		<i>of a triangle.</i>		
	<i>3<sup>rd</sup></i>	<i>Cartesian and Polar co-ordinates (two dimensional), Distance between two points, mid-point, centroid of vertices of a triangle.</i>		<i>Theoretical Introduction, MATLAB or Scilab as Simple Calculator</i>
	<i>4<sup>th</sup></i>	<i>Slope of a line, equation of straight line in various standards forms (without proof);</i>		<i>(Addition and subtraction of values – Trigonometric and Inverse Trigonometric functions)</i>
<i>7<sup>th</sup></i>	<i>1<sup>st</sup></i>	<i>Slope of a line, equation of straight line in various standards forms (without proof);</i>		<i>General Practice</i>
	<i>2<sup>nd</sup></i>	<i>(slope intercept form, intercept form, one-point form, two-point form, symmetric form,</i>		<i>Revision Unit-4</i>
	<i>3<sup>rd</sup></i>	<i>form), intersection of two straight lines, concurrency of lines, angle between straight lines, parallel and perpendicular lines,</i>		<i>Revision Unit-4</i>
	<i>4<sup>th</sup></i>	<i>perpendicular distance formula, conversion of general form of equation to the various forms.</i>		<i>Revision Unit-4</i>



8 <sup>th</sup>	1 <sup>st</sup>	<b>Revision- Unit-4</b>
	2 <sup>nd</sup>	
	3 <sup>rd</sup>	<b>Revision- Unit-4</b>
	4 <sup>th</sup>	<b>Revision- Unit-4</b>
9 <sup>th</sup>	1 <sup>st</sup>	<b>UNIT V</b>
	2 <sup>nd</sup>	<b>Geometry of Circle and Software</b>
		<b>Circle Introduction</b>
	3 <sup>rd</sup>	<b>UNIT V</b>
10 <sup>th</sup>		<b>Geometry of Circle and Software</b>
	4 <sup>th</sup>	<b>Circle Introduction</b>
	1 <sup>st</sup>	<i>General equation of a circle and its characteristics. To find the equation of a circle, given:</i>
	2 <sup>nd</sup>	<i>General equation of a circle and its characteristics. To find the equation of a circle, given:</i>
11 <sup>th</sup>	3 <sup>rd</sup>	<i>Centre and radius</i>
	4 <sup>th</sup>	<i>Three points lying on it</i>
	1 <sup>st</sup>	<i>Coordinates of end points of a diameter</i>
	2 <sup>nd</sup>	<i>Centre and radius</i>
	3 <sup>rd</sup>	<i>Three points lying on it</i>
	4 <sup>th</sup>	<i>Coordinates of end points of a diameter</i>

12 <sup>th</sup>	1 <sup>st</sup>	<b>MATLAB Or SciLab software Introduction</b>	
	2 <sup>nd</sup>		
		<b>MATLAB Or SciLab software Introduction</b>	
	3 <sup>rd</sup>	<b>MATLAB Or SciLab software Introduction</b>	
13 <sup>th</sup>	4 <sup>th</sup>	<b>MATLAB Or SciLab software Introduction</b>	
	1 <sup>st</sup>	<i>Theoretical Introduction, MATLAB or Scilab as Simple Calculator</i>	
	2 <sup>nd</sup>	<i>Theoretical Introduction, MATLAB or Scilab as Simple Calculator</i>	
	3 <sup>rd</sup>	<i>(Addition and subtraction of values – Trigonometric and Inverse Trigonometric functions</i>	
14 <sup>th</sup>	4 <sup>th</sup>	<i>(Addition and subtraction of values – Trigonometric and Inverse Trigonometric functions</i>	
	1 <sup>st</sup>	<i>Revision Unit-4</i>	
	2 <sup>nd</sup>		
		<i>Revision Unit-4</i>	
15 <sup>th</sup>	3 <sup>rd</sup>	<i>Revision Unit-4</i>	
	4 <sup>th</sup>	<i>Revision</i>	
	1 <sup>st</sup>	<i>Revision</i>	
	2 <sup>nd</sup>		
		<i>Revision</i>	
	3 <sup>rd</sup>	<i>Revision</i>	

16 <sup>th</sup>	4 <sup>th</sup>	Revision	
	1 <sup>st</sup>	Revision	
	2 <sup>nd</sup>		
		Revision	
	3 <sup>rd</sup>	Revision	
	4 <sup>th</sup>	Revision	

Government Polytechnic Sector 26 , Panchkula				
Name of Faculty: SUDESH SHARMA				
Discipline: COMPUTER,ELECTRONICS				
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		



