PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Dr. Sunita Rani, HOD
DISCIPLINE : Automobile, Mech-A
SEMESTER : Second
SUBJECT : APPLIED CHEMISTRY (Theory)
LESSION PLAN DURATION: 15 WEEKS
WORK LOAD PER WEEK : Lectures = 3

WEEK	LECTURE DAY		TOPIC (WITH ASSIGNMENT & TESTS)
			THEORY
1	1		Introduction of Atomic Structure, Bohr's model of atom
	2		Dual character of matter: derivation of de-Broglie's equation Heisenberg's Principle of Uncertainty, modern concept of atomic structure
	3		Definition of orbitals shapes of s, p and d-orbitals
2	4		Quantum numbers and their significance
	5		Aufbau and Pauli's exclusion principles Hund's rule
	6		Electronic configuration of elements up to atomic number 30.
3	7		Periodic Table Modern Periodic law and Periodic table, Classification of elements into s, p
	8		Classification of elements into d, f-blocks,metals, non-metals and
	9		Chemical bonding: cause of bonding, ionic bond Physical properties of
4	10		Covalent bond, and metallic bond (electronsea or gas model),
	11		Doubt Quarries and Revision
	12		Metals: mechanical properties of metals such as conductivity, elasticity, strength and stiffness, luster, hardness, toughness, ductility, malleability
			1st Sessional test
5	13		Metals: mechanical properties of metals such as, brittleness, and impact resistance and their uses. Definition of a mineral, ore, gangue, flux and slag
	14		Metallurgy of iron from hematite using a blast furnace Commercial variety of iron
	15		Alloys: definition, necessity of making alloys, composition, properties and uses of duralumin and steel. Heat treatment of steel- normalizing, annealing, quenching, tempering.
6	16		Doubt Quarries and Revision
	17		Solutions: definition, expression of the concentration of a solution in percentage (w/w, w/v and v/v), normality, molarity and molality and ppm.
	18		Simple problems on solution preparation
7	19		Arrhenius concept of acids and bases, strong and weak acids and bases, pH value of a solution and its significance, pH scale
	20		Simple numerical problems on pH of acids and bases.
	21		Hard and soft water, causes of hardness of water, types of hardness – temporary and permanent hardness

8	22		Expression of hardness of water, ppm unit of hardness; disadvantages of hard water; removal of hardness
	23		Removal of temporary hardness by boiling and Clark's method; removal of permanent hardness of water by Ion-Exchange method
	24		Boiler problems caused by hard water: scale and sludge formation, priming and foaming, caustic embrittlement; water sterilization by chlorine, UV radiation and RO
9	25		Doubt Quarries and Revision
	26		Fuels: definition and classification of higher and lower calorific values, units of calorific value
	27		Characteristics of an ideal fuel. Petroleum: composition and refining of petroleum
2nd Sessional Test			
10	28		Gaseousfuels: composition, properties and uses of CNG, PNG, LNG, LPG
	29		Relative advantages of liquid and gaseous fuels over solid fuels. Scope of hydrogen as future fuel.
	30		Lubricants- Functions and qualities of a good lubricant, classification of lubricants
11	31		Lubrication mechanism (brief idea only
	32		Physical properties (brief idea only) of a lubricant: oiliness, viscosity, viscosity index, flash and fire point, ignition temperature, pour point.
	33		Doubt Quarries and Revision
12	34		Polymers and Plastics: definition of polymer, classification, addition and condensation polymerization
	35		Preparation properties and uses of polythene, PVC, Nylon-66
	36		Preparation properties and uses Bakelite; definition of plastic
13	37		Thermoplastics and thermosetting polymers; natural rubber and neoprene, other synthetic rubbers (names only).
	38		Corrosion: definition, dry and wet corrosion
	39		Factors affecting rate of corrosion, methods of prevention of corrosion—hot dipping
14	40		Prevention of corrosion metal cladding, cementation, quenching, cathodic protection methods
	41		Introduction and application of nanotechnology: nano-materials
	42		Classification, applications of nanotechnology in various engineering
3rd Sessional test			
15	43		Doubt Quarries and Revision
	44		Revision and discussion of previous year Q. Papers
	45		Revision and discussion of previous year Q. Papers

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Dr. Sunita Rani, HOD
DISCIPLINE : Automobile, Mech-A
SEMESTER : Second
SUBJECT : APPLIED CHEMISTRY (Practical)
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : Practicals = 4+2

WEEK	LECTURE DAY	Coverage date		Name of Practical
		G1	G2	
1	1			To prepare standard solution of oxalic acid
2	2			To dilute the given KMnO4 solution
3	3			To find out the strength in grams per litre of an unknown solution of sodium hydroxide using astandard (N/10) oxalic acid solution
4	4			Checking of Practical Files
5	5			To find out the total alkalinity in parts per million (ppm) of a water sample with the help of astandard sulphuric acid solution.
6	6			To determine the total hardness of given water sample by EDTA method
7	7			Checking of Practical Files
8	8			To determine the total hardness of given water sample by EDTA method
9	9			To determine the amount of total dissolved solids(TDS) in ppm in a given sample of watergravimetrically
10	10			To determine the pH of different solutions using a digital pH meter
11	11			To determine the calorific value of a solid/liquid fuel using a Bomb calorimeter
12	12			Checking of Practical Files & Viva
13	13			To determine the viscosity of a lubricating oil using a Redwood viscometer
14	14			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab
15	15			Checking of Practical Files & Viva

The heading "Practical" spans the Coverage date and Name of Practical columns.

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Ravinder Kumar (Lecturer)
DISCIPLINE : Mech-B, Auto
SEMESTER : Second
SUBJECT : APPLIED CHEMISTRY (Theory)
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : Lectures = 3 +3

WEEK	LECTURE DAY		TOPIC (WITH ASSIGNMENT & TESTS)
			THEORY
1	1		Introduction of Atomic Structure, Bohr's model of atom
	2		Dual character of matter: derivation of de-Broglie's equation Heisenberg's Principle of Uncertainty, modern concept of atomic structure
	3		Definition of orbitals shapes of s, p and d-orbitals
2	4		Quantum numbers and their significance
	5		Aufbau and Pauli's exclusion principles Hund's rule
	6		Electronic configuration of elements up to atomic number 30.
3	7		Periodic Table Modern Periodic law and Periodic table, Classification of elements into s, p
	8		Classification of elements into d, f-blocks,metals, non-metals and
	9		Chemical bonding: cause of bonding, ionic bond Physical properties of
4	10		Covalent bond, and metallic bond (electronsea or gas model),
	11		Doubt Quarries and Revision
	12		Metals: mechanical properties of metals such as conductivity, elasticity, strength and stiffness, luster, hardness, toughness, ductility, malleability
			1ˢᵗ Sessional test
5	13		Metals: mechanical properties of metals such as, brittleness, and impact resistance and their uses. Definition of a mineral, ore, gangue, flux and slag
	14		Metallurgy of iron from haematite using a blast furnace Commercial varieties of iron
	15		Alloys: definition, necessity of making alloys, composition, properties and uses of duralumin and steel. Heat treatment of steel- normalizing, annealing, quenching, tempering.
6	16		Doubt Quarries and Revision
	17		Solutions: definition, expression of the concentration of a solution in percentage (w/w, w/v and v/v), normality, molarity and molality and ppm.
	18		Simple problems on solution preparation
7	19		Arrhenius concept of acids and bases, strong and weak acids and bases, pH value of a solution and its significance, pH scale
	20		Simple numerical problems on pH of acids and bases.
	21		Hard and soft water, causes of hardness of water, types of hardness – temporary and permanent hardness

8	22		Expression of hardness of water, ppm unit of hardness; disadvantages of hard water; removal of hardness
	23		Removal of temporary hardness by boiling and Clark's method; removal of permanent hardness of water by Ion-Exchange method
	24		Boiler problems caused by hard water: scale and sludge formation, priming and foaming, caustic embrittlement; water sterilization by chlorine, UV radiation and RO
9	25		Doubt Quarries and Revision
	26		Fuels: definition and classification of higher and lower calorific values, units of calorific value
	27		Characteristics of an ideal fuel. Petroleum: composition and refining of petroleum
2nd Sessional Test			
10	28		Gaseousfuels: composition, properties and uses of CNG, PNG, LNG, LPG
	29		Relative advantages of liquid and gaseous fuels over solid fuels. Scope of hydrogen as future fuel.
	30		Lubricants- Functions and qualities of a good lubricant, classification of lubricants
11	31		Lubrication mechanism (brief idea only
	32		Physical properties (brief idea only) of a lubricant: oiliness, viscosity, viscosity index, flash and fire point, ignition temperature, pour point.
	33		Doubt Quarries and Revision
12	34		Polymers and Plastics: definition of polymer, classification, addition and condensation polymerization
	35		Preparation properties and uses of polythene, PVC, Nylon-66
	36		Preparation properties and uses Bakelite; definition of plastic
13	37		Thermoplastics and thermosetting polymers; natural rubber and neoprene, other synthetic rubbers (names only).
	38		Corrosion: definition, dry and wet corrosion
	39		Factors affecting rate of corrosion, methods of prevention of corrosion—hot dipping
14	40		Prevention of corrosion metal cladding, cementation, quenching, cathodic protection methods
	41		Introduction and application of nanotechnology: nano-materials
	42		Classification, applications of nanotechnology in various engineering
3rd Sessional test			
15	43		Doubt Quarries and Revision
	44		Revision and discussion of previous year Q. Papers
	45		Revision and discussion of previous year Q. Papers

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Ravinder Kumar (Lecturer)
DISCIPLINE : Automobile, Mech-B
SEMESTER : Second
SUBJECT : APPLIED CHEMISTRY (Practical)
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : Practicals = 2+4

WEEK	LECTURE DAY	Practical		Name of Practical
		Coverage date		
		G1	G2	
1	1			To prepare standard solution of oxalic acid
2	2			To dilute the given KMnO4 solution
3	3			To find out the strength in grams per litre of an unknown solution of sodium hydroxide using astandard (N/10) oxalic acid solution
4	4			Checking of Practical Files
5	5			To find out the total alkalinity in parts per million (ppm) of a water sample with the help of astandard sulphuric acid solution.
6	6			To determine the total hardness of given water sample by EDTA method
7	7			Checking of Practical Files
8	8			To determine the total hardness of given water sample by EDTA method
9	9			To determine the amount of total dissolved solids(TDS) in ppm in a given sample of watergravimetrically
10	10			To determine the pH of different solutions using a digital pH meter
11	11			To determine the calorific value of a solid/liquid fuel using a Bomb calorimeter
12	12			Checking of Practical Files & Viva
13	13			To determine the viscosity of a lubricating oil using a Redwood viscometer
14	14			To prepare a sample of Phenol-formaldehyde resin (Bakelite)/Nylon-66 in the lab
15	15			Checking of Practical Files & Viva

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Ravinder Kumar
DISCIPLINE : Elect, Comp, Arch
SEMESTER :2nd
SUBJECT :ESDM
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : Lectures = 02+02+02

WE EK	LEC TUR E DAY		THEORY
			TOPIC (WITH ASSIGNMENT & TESTS)
1	1		**Introduction**
	2		Basics of ecology , Eco system- concept
2	3		Sustainable development
	4		Renewable and non-renewable Sources of energy and their advantages& disadvantages
3	5		Rain water harvesting
	6		Deforestation – its effects & control measures
4	7		Air Pollution: Source of air pollution
	8		Effect of air pollution on human health, economy, Air pollution control methods
5	9		Defination and Source of noise pollution, Unit of noise, Effect of noise pollution, Acceptable noise level, Different method of minimizing noise pollution
	10		Revision of Air and Noise Pollution
			1st sessional test
6	11		Water Pollution: Impurities in water, Cause of water pollution
	12		Source of water pollution. Effect of water pollution on human health, Concept of DO, BOD, COD
7	13		Prevention of water pollution- Water treatment processes, Sewage treatment
	14		Water quality standard. Defination and Sources of soil pollution
8	15		Effects and Control of soil pollution, Types of Solid waste- House hold, Industrial, Agricultural, Biomedical,
	16		Disposal of solid waste, Solid waste management E-waste, E – waste management
9	17		Impact of Energy Usage on Environment Global Warming
	18		Green House Effect, Depletion of Ozone Layer, Acid Rain
10	19		Eco-friendly Material, Recycling of Material, Concept of Green Buildings
	20		Concept of Carbon Credit & Carb on footprint.
11	21		Revision of Impact of Energy Usage on Environment
			2nd sessional test
	22		Natural Disaster: such as Flood, Cyclone
12	23		Natural Disaster: Earthquakes and Land slides etc
	24		Man-made Disaster: such as Fire, Industrial Pollution
13	25		Man-made Disaster: Nuclear Disaster, Biological Disasters, Accidents (Air, Sea Rail & Road)
	26		Man-made Disaster: Structural failures (Building and Bridge),War& Terrorism etc.

14	27		Disaster Preparedness Plan Prediction, Disaster Preparedness Early Warnings and Safety Measures of Disaster
	28		Psychological response and Management(Trauma, Stress), Psychological response and Management(Rumour and Panic)
		3rd Sessional test	
15	29		Revision and discussion of previous year Q. Papers
	30		Revision and discussion of previous year Q. Papers

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY : Lavaney
DISCIPLINE : ECE, CIVIL-A
SEMESTER :2nd
SUBJECT :ESDM
LESSION PLAN DURATION : 15 WEEKS
WORK LOAD PER WEEK : Lectures = **2+2**

WEEK			THEORY
	LECTURE DAY		TOPIC (WITH ASSIGNMENT & TESTS)
1	1		**Introduction**
	2		Basics of ecology , Eco system- concept
2	3		Sustainable development
	4		Renewable and non-renewable Sources of energy and their advantages& disadvantages
3	5		Rain water harvesting
	6		Deforestation – its effects & control measures
4	7		Air Pollution: Source of air pollution
	8		Effect of air pollution on human health, economy, Air pollution control methods
5	9		Defination and Source of noise pollution, Unit of noise, Effect of noise pollution, Acceptable noise level, Different method of minimizing noise pollution
	10		Revision of Air and Noise Pollution
1st sessional test			
6	11		Water Pollution: Impurities in water, Cause of water pollution
	12		Source of water pollution. Effect of water pollution on human health, Concept of DO, BOD, COD
7	13		Prevention of water pollution- Water treatment processes, Sewage treatment
	14		Water quality standard. Defination and Sources of soil pollution
8	15		Effects and Control of soil pollution, Types of Solid waste- House hold, Industrial, Agricultural, Biomedical,
	16		Disposal of solid waste, Solid waste management E-waste, E – waste management
9	17		Impact of Energy Usage on Environment Global Warming
	18		Green House Effect, Depletion of Ozone Layer, Acid Rain
10	19		Eco-friendly Material, Recycling of Material, Concept of Green Buildings
	20		Concept of Carbon Credit & Carb on footprint.
11	21		Revision of Impact of Energy Usage on Environment
2nd sessional test			
	22		Natural Disaster: such as Flood, Cyclone
12	23		Natural Disaster: Earthquakes and Land slides etc

	24		Man-made Disaster: such as Fire, Industrial Pollution
13	25		Man-made Disaster: Nuclear Disaster, Biological Disasters, Accidents (Air, Sea Rail & Road)
	26		Man-made Disaster: Structural failures (Building and Bridge),War& Terrorism etc.
14	27		Disaster Preparedness Plan Prediction, Disaster Preparedness Early Warnings and Safety Measures of Disaster
	28		Psychological response and Management(Trauma, Stress), Psychological response and Management(Rumour and Panic)
			3rd Sessional test
15	29		Revision and discussion of previous year Q. Papers
	30		Revision and discussion of previous year Q. Papers

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY   **: Mayur Rohila**
DISCIPLINE   **: plastic, CIVIL-B**
SEMESTER   **:2nd**
SUBJECT   **:ESDM**
LESSION PLAN DURATION   **: 15 WEEKS**
WORK LOAD PER WEEK   **: Lectures = 2+2**

WEEK	LECTURE DAY		THEORY
			TOPIC (WITH ASSIGNMENT & TESTS)
1	1		**Introduction**
	2		Basics of ecology , Eco system- concept
2	3		Sustainable development
	4		Renewable and non-renewable Sources of energy and their advantages& disadvantages
3	5		Rain water harvesting
	6		Deforestation – its effects & control measures
4	7		Air Pollution: Source of air pollution
	8		Effect of air pollution on human health, economy, Air pollution control methods
5	9		Defination and Source of noise pollution, Unit of noise, Effect of noise pollution, Acceptable noise level, Different method of minimizing noise pollution
	10		Revision of Air and Noise Pollution
			1st sessional test
6	11		Water Pollution: Impurities in water, Cause of water pollution
	12		Source of water pollution. Effect of water pollution on human health, Concept of DO, BOD, COD
7	13		Prevention of water pollution- Water treatment processes, Sewage treatment
	14		Water quality standard. Defination and Sources of soil pollution
8	15		Effects and Control of soil pollution, Types of Solid waste- House hold, Industrial, Agricultural, Biomedical,
	16		Disposal of solid waste, Solid waste management E-waste, E – waste management
9	17		Impact of Energy Usage on Environment Global Warming
	18		Green House Effect, Depletion of Ozone Layer, Acid Rain
10	19		Eco-friendly Material, Recycling of Material, Concept of Green Buildings
	20		Concept of Carbon Credit & Carb on footprint.
11	21		Revision of Impact of Energy Usage on Environment
			2nd sessional test
	22		Natural Disaster: such as Flood, Cyclone

12	23		Natural Disaster: Earthquakes and Land slides etc
	24		Man-made Disaster: such as Fire, Industrial Pollution
13	25		Man-made Disaster: Nuclear Disaster, Biological Disasters, Accidents (Air, Sea Rail & Road)
	26		Man-made Disaster: Structural failures (Building and Bridge),War& Terrorism etc.
14	27		Disaster Preparedness Plan Prediction, Disaster Preparedness Early Warnings and Safety Measures of Disaster
	28		Psychological response and Management(Trauma, Stress), Psychological response and Management(Rumour and Panic)
			3rd Sessional test
15	29		Revision and discussion of previous year Q. Papers
	30		Revision and discussion of previous year Q. Papers

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY   : Ms. Deepti Gupta

DISCIPLINE   : Mech-A, ECE, Elect, Civil-B

SEMESTER   : SECOND

SUBJECT   : APPLIED MATHEMATICS

LESSION PLAN DURATION   : 15 WEEKS

WORK LOAD PER WEEK   :Lectures= 16

WEEK	LECTURE DAY	TOPIC (WITH ASSIGNMENT & TESTS)	PRACTICAL DAY	TOPIC
		THEORY	**PRACTICAL**	
1	1	Definition of function, its types	–	–
	2	Concept of Algebraic limits		
	3	Concept of Trigonometric, Exponential & log-limits	–	–
	4	Numericals		–
2	5	Differentiation of x^n , sin x by first principle	–	–
	6	Differentiation of cos x, tan x by first principle		
	7	Differentiation of sum and difference of function	–	–
	8	Differentiation of product of function	–	–
3	9	Differentiation of quotient of functions	–	–
	10	Differentiation of trigonometric functions		
	11	Differentiation of inverse trigonometric function	–	–
	12	Differentiation of Logarithmic function	–	–
4	13	Successive differentiation	–	–
	14	Application of diff. in Rate measures		
	15	Maxima and minima	–	–
	16	Assignment-1 and Numericals	–	–
5	17	Numericals	–	–
	18	1st Sessional Test (Tentative)		
	19	1st Sessional Test (Tentative)	–	–
	20	1st Sessional Test (Tentative)	–	–
6	21	Integration as inverse operation of differentiation	–	–
	22	Simple standard integrals		
	23	Numericals	–	–
	24	Integration by substitution method	–	–
7	25	Integration by Parts	–	–
	26	Evaluation of		
	27	Numericals	–	–
	28	Assignment-2	–	–
8	29	Applications of integration Area under a curve and axis	–	–
	30	Numerical integration by Trapezoidal Rule		
	31	Numerical integration by Simpson's 1/3rd Rule	–	–
	32	Numericals	–	–
9	33	Differential, order, degree, type linearity	–	–
	34	Function of O.D.E. (upto 1st order)		
	35	Solution of O.D.E. (1st order) by variable	–	–

	36	Assignment-3	–	–
10	37	2nd Sessional Test (Tentative)	–	–
	38	2nd Sessional Test (Tentative)		
	39	2nd Sessional Test (Tentative)	–	–
	40	2nd Sessional Test (Tentative)	–	–
11	41	Measure of central tendency: mean	–	–
	42	Measure of central tendency: median		
	43	Measure of central tendency: mode	–	–
	44	Numericals	–	–
12	45	Measure of dispersion: Mean Deviation	–	–
	46	Measure of dispersion: Standard Deviation		
	47	Numericals	–	–
	48	Assignment-4	–	–
13	49	Software- Theoretical Introduction	–	–
	50	Basic Diff. Between MATLAB and Sclab software		
	51	Calculation with MATLAB or ScLab Representation of Matrix	–	–
	52	Add, sub of Matrices (2x2 order) in MATLAB or ScLab	–	–
14	53	3rd Sessional Test (Tentative)	–	–
	54	3rd Sessional Test (Tentative)		
	55	3rd Sessional Test (Tentative)	–	–
	56	3rd Sessional Test (Tentative)	–	–
15	57	Revision	–	–
	58	Practice of Previous Question papers		
	59	Practice of Previous Question papers	–	–
	60	Revision	–	–

NAME OF THE FACULTY : Ms. Kanupriya

DISCIPLINE : MECH-B, Comp, Civil-A, Auto

SEMESTER : SECOND

SUBJECT : APPLIED MATHEMATICS

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK :Lectures= 16

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC (WITH ASSIGNMENT & TESTS)	PRACTICAL DAY	TOPIC
1	1	Definition of function, its types	–	–
	2	Concept of Algebraic limits		
	3	Concept of Trigonometric, Exponential & log-limits	–	–
	4	Numericals		–
2	5	Differentiation of x^n , sin x by first principle	–	–
	6	Differentiation of cos x, tan x by first principle		
	7	Differentiation of sum and difference of function	–	–
	8	Differentiation of product of function	–	–
3	9	Differentiation of quotient of functions	–	–
	10	Differentiation of trigonometric functions		
	11	Differentiation of inverse trigonometric function	–	–
	12	Differentiation of Logarithmic function	–	–
4	13	Successive differentiation	–	–
	14	Application of diff. in Rate measures		
	15	Maxima and minima	–	–
	16	Assignment-1 and Numericals	–	–
5	17	Numericals	–	–
	18	1st Sessional Test (Tentative)		
	19	1st Sessional Test (Tentative)	–	–
	20	1st Sessional Test (Tentative)	–	–
6	21	Integration as inverse operation of differentiation	–	–
	22	Simple standard integrals		
	23	Numericals	–	–
	24	Integration by substitution method	–	–
7	25	Integration by Parts	–	–
	26	Evaluation of		
	27	Numericals	–	–
	28	Assignment-2	–	–
8	29	Applications of integration Area under a curve and axis	–	–
	30	Numerical integration by Trapezoidal Rule		
	31	Numerical integration by Simpson's 1/3rd Rule	–	–
	32	Numericals	–	–
9	33	Differential, order, degree, type linearity	–	–
	34	Function of O.D.E. (upto 1st order)		
	35	Solution of O.D.E. (1st order) by variable	–	–
	36	Assignment-3	–	–

10	37	2nd Sessional Test (Tentative)	–	–
	38	2nd Sessional Test (Tentative)	–	–
	39	2nd Sessional Test (Tentative)		
	40	2nd Sessional Test (Tentative)	–	–
11	41	Measure of central tendency: mean	–	–
	42	Measure of central tendency: median	–	–
	43	Measure of central tendency: mode		
	44	Numericals	–	–
12	45	Measure of dispersion: Mean Deviation	–	–
	46	Measure of dispersion: Standard Deviation	–	–
	47	Numericals		
	48	Assignment-4	–	–
13	49	Software- Theoretical Introduction	–	–
	50	Basic Diff. Between MATLAB and Sclab software	–	–
	51	Calculation with MATLAB or ScLab Representation of Matrix		
	52	Add, sub of Matrices (2x2 order) in MATLAB or ScLab	–	–
14	53	3rd Sessional Test (Tentative)	–	–
	54	3rd Sessional Test (Tentative)	–	–
	55	3rd Sessional Test (Tentative)		
	56	3rd Sessional Test (Tentative)	–	–
15	57	Revision	–	–
	58	Practice of Previous Question papers	–	–
	59	Practice of Previous Question papers		
	60	Revision	–	–

	PERFORMA OF LESSON PLAN				
	NAME OF THE FACULTY : Mrs. SARITA MANN,				
	DISCIPLINE : MECHANICAL-A, ELECT, MECH-B				
	SEMESTER : SECOND				
	SUBJECT : APPLIED PHYSICS				
	LESSION PLAN DURATION : 15 WEEKS				
	WORK LOAD PER WEEK : Lectures= 2+2Practicals = 4+4 +4				

WEEK	LECTURE DAY		THEORY		PRACTICAL	
			TOPIC (WITH ASSIGNMENT & TESTS)			TOPIC
1	1		UNIT-1. Waves: definition, types (mechanical and electromagnetic wave) Wave motion- transverse and longitudinal with examples		1	Familiarization with apparatus (resistor, rheostat, key, ammeter, voltmeter, telescope, microscope etc.)
	2		Wave motion-transverse and longitudinal, terms used in wave motion and relation between wave velocity, frequency and wavelength			
2	3		Simple harmonic motion (SHM): definition, examples,		2	To find the time period of a simple pendulum.
	4		Free, forced and resonant vibrations with examples			
3	5		Sound waves: types (infrasonic, audible, ultrasonic) coefficient of absorption of sound, echo, noise		3	To study variation of time period of a simple pendulum with change in length of
	6		UNIT-2. Reflection and refraction of light with laws, refractive index			
4	7		Lens: introduction, lens formulae (no derivation), power of lens and simple numerical problems		4	File checking and viva-voce
	8		Total internal reflection and its applications, critical angle and conditions for total internal reflection			
5	9		Revision		5	To determine and verify the time period of Cantilever
	10		1st sessional test			
6	11		Superposition of waves (concept only), definition of interference, Diffraction and Polarization of waves		6	To verify Ohm's laws by plotting a graph between voltage and current.
	12		Introduction to Microscope, Telescope and their applications			
7	13		Unit-3. Electrostatics and Electricity-Electric charge, unit of charge, conservation of charge		7	File checking and viva-voce
	14		Coulomb's law of electrostatics, Electric field, electric lines of force (definition and properties), electric field intensity due to a point charge			
8	15		Definition of electric flux, Gauss law (statement and formula), Capacitor and capacitance		8	To study colour coding scheme of resistance.

	16	Electric current and its SI Unit, direct and alternating current		
9	17	Resistance, conductance , Series and parallel combination of resistances, Ohm's law	9	To verify laws of resistances in series combination.
	18	Numerical problems		
10	19	Revision	**10**	To verify laws of resistance in parallel combination.
	20	2nd sessional test		
11	21	Definition of energy level, energy bands, Types of materials (conductor, semiconductor, insulator and dielectric) with examples , Intrinsic and extrinsic	11	To find resistance of galvanometer by half deflection method
	22	Introduction to magnetism, type of magnetic materials: diamagnetic, paramagnetic and ferromagnetic materials with examples		
12	23	Magnetic field, magnetic lines of force, magnetic flux Electromagnetic induction (definition)	12	To verify laws of reflection of light using mirror.
	24	Laser-introduction, principle of laser, Engineering and medical applications of laser		
13	25	Fibre optics: Introduction to optical fibres (definition, principle), Fibre types (mono-mode, multi-mode)	13	To verify laws of refraction using glass slab.
	26	applications of fibre optics in medical, telecommunication and sensors		
14	27	Nanotechnology: introduction, definition of nanomaterials with examples, properties at nanoscale, applications of nanotechnology	14	To find the focal length of a concave lens, using a convex lens.
	28	3rd sessional test		
15	29	Discussion of sessional test	15	File checking and viva-voce
	30	Numerical problems, Revision of question papers of last		

			PERFORMA OF LESSON PLAN		

NAME OF THE FACULTY : Mr. Lavaney

DISCIPLINE : CIVIL-B, COMP, AUTO

SEMESTER : SECOND

SUBJECT : APPLIED PHYSICS

LESSION PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : Lectures= 2+2+2 Practicals = 4+4 +2

WEEK	LECTURE DAY		THEORY		PRACTICAL
			TOPIC (WITH ASSIGNMENT & TESTS)		TOPIC
1	1		UNIT-1. Waves: definition, types (mechanical and electromagnetic wave) Wave motion- transverse and longitudinal with examples	1	Familiarization with apparatus (resistor, rheostat, key, ammeter, voltmeter, telescope, microscope etc.)
	2		Wave motion-transverse and longitudinal, terms used in wave motion and relation between wave velocity, frequency and wavelength		
2	3		Simple harmonic motion (SHM): definition, examples,	2	To find the time period of a simple pendulum.
	4		Free, forced and resonant vibrations with examples		
3	5		Sound waves: types (infrasonic, audible, ultrasonic) coefficient of absorption of sound, echo, noise	3	To study variation of time period of a simple pendulum with change in length of
	6		UNIT-2. Reflection and refraction of light with laws, refractive index		
4	7		Lens: introduction, lens formulae (no derivation), power of lens and simple numerical problems	4	File checking and viva-voce
	8		Total internal reflection and its applications, critical angle and conditions for total internal reflection		
5	9		Revision	5	To determine and verify the time period of Cantilever
	10		1st sessional test		
6	11		Superposition of waves (concept only), definition of interference, Diffraction and Polarization of waves	6	To verify Ohm's laws by plotting a graph between voltage and current.
	12		Introduction to Microscope, Telescope and their applications		
7	13		Unit-3. Electrostatics and Electricity-Electric charge, unit of charge, conservation of charge	7	File checking and viva-voce
	14		Coulomb's law of electrostatics, Electric field, electric lines of force (definition and properties), electric field intensity due to a point charge		

8	15		Definition of electric flux, Gauss law (statement and formula), Capacitor and capacitance	8	To study colour coding scheme of resistance.
	16		Electric current and its SI Unit, direct and alternating current		
9	17		Resistance, conductance , Series and parallel combination of resistances, Ohm's law	9	To verify laws of resistances in series combination.
	18		Numerical problems		
10	19		Revision	10	To verify laws of resistance in parallel combination.
	20		2nd sessional test		
11	21		Definition of energy level, energy bands, Types of materials (conductor, semiconductor, insulator and dielectric) with examples , Intrinsic and extrinsic	11	To find resistance of galvanometer by half deflection method
	22		Introduction to magnetism, type of magnetic materials: diamagnetic, paramagnetic and ferromagnetic materials with examples		
12	23		Magnetic field, magnetic lines of force, magnetic flux Electromagnetic induction (definition)	12	To verify laws of reflection of light using mirror.
	24		Laser-introduction, principle of laser, Engineering and medical applications of laser		
13	25		Fibre optics: Introduction to optical fibres (definition, principle), Fibre types (mono-mode, multi-mode)	13	To verify laws of refraction using glass slab.
	26		applications of fibre optics in medical, telecommunication and sensors		
14	27		Nanotechnology: introduction, definition of nanomaterials with examples, properties at nanoscale, applications of nanotechnology	14	To find the focal length of a concave lens, using a convex lens.
	28		3rd sessional test		
15	29		Discussion of sessional test	15	File checking and viva-voce
	30		Numerical problems, Revision of question papers of last		

PERFORMA OF LESSON PLAN

NAME OF THE FACULTY	: Mr. Mayur Rohila
DISCIPLINE	: CIVIL-A, ECE, MECH-B
SEMESTER	: SECOND
SUBJECT	: APPLIED PHYSICS
LESSION PLAN DURATION	: 15 WEEKS
WORK LOAD PER WEEK	: Lectures= 2+2+2 Practicals = 4+4+2

WEEK	LECTURE DAY		THEORY TOPIC (WITH ASSIGNMENT & TESTS)		PRACTICAL TOPIC
1	1		UNIT-1. Waves: definition, types (mechanical and electromagnetic wave) Wave motion- transverse and longitudinal with examples	1	Familiarization with apparatus (resistor, rheostat, key, ammeter, voltmeter, telescope, microscope etc.)
	2		Wave motion-transverse and longitudinal, terms used in wave motion and relation between wave velocity, frequency and wavelength		
2	3		Simple harmonic motion (SHM): definition, examples,	2	To find the time period of a simple pendulum.
	4		Free, forced and resonant vibrations with examples		
3	5		Sound waves: types (infrasonic, audible, ultrasonic) coefficient of absorption of sound, echo, noise	3	To study variation of time period of a simple pendulum with change in length of
	6		UNIT-2. Reflection and refraction of light with laws, refractive index		
4	7		Lens: introduction, lens formulae (no derivation), power of lens and simple numerical problems	4	File checking and viva-voce
	8		Total internal reflection and its applications, critical angle and conditions for total internal reflection		
5	9		Revision	5	To determine and verify the time period of Cantilever
	10		1st sessional test		
6	11		Superposition of waves (concept only), definition of interference, Diffraction and Polarization of waves	6	To verify Ohm's laws by plotting a graph between voltage and current.
	12		Introduction to Microscope, Telescope and their applications		
7	13		Unit-3. Electrostatics and Electricity-Electric charge, unit of charge, conservation of charge	7	File checking and viva-voce
	14		Coulomb's law of electrostatics, Electric field, electric lines of force (definition and properties), electric field intensity due to a point charge		
8	15		Definition of electric flux, Gauss law (statement and formula), Capacitor and capacitance	8	To study colour coding scheme of resistance.

	16		Electric current and its SI Unit, direct and alternating current		
9	17		Resistance, conductance , Series and parallel combination of resistances, Ohm's law	9	To verify laws of resistances in series combination.
	18		Numerical problems		
10	19		Revision	**10**	To verify laws of resistance in parallel combination.
	20		2nd sessional test		
11	21		Definition of energy level, energy bands, Types of materials (conductor, semiconductor, insulator and dielectric) with examples , Intrinsic and extrinsic	11	To find resistance of galvanometer by half deflection method
	22		Introduction to magnetism, type of magnetic materials: diamagnetic, paramagnetic and ferromagnetic materials with examples		
12	23		Magnetic field, magnetic lines of force, magnetic flux Electromagnetic induction (definition)	12	To verify laws of reflection of light using mirror.
	24		Laser-introduction, principle of laser, Engineering and medical applications of laser		
13	25		Fibre optics: Introduction to optical fibres (definition, principle), Fibre types (mono-mode, multi-mode)	13	To verify laws of refraction using glass slab.
	26		applications of fibre optics in medical, telecommunication and sensors		
14	27		Nanotechnology: introduction, definition of nanomaterials with examples, properties at nanoscale, applications of nanotechnology	14	To find the focal length of a concave lens, using a convex lens.
	28		3rd sessional test		
15	29		Discussion of sessional test	15	File checking and viva-voce
	30		Numerical problems, Revision of question papers of last		