

LESSON PLAN

Name :Mr. Ajay Singh (Theory)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Applied Physics-II (AS-102N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit – I: Crystal Structure: Crystalline and Amorphous solids, Crystal Structure: lattice translation vector, symmetry operations, space lattice,
	2 nd	basis; Unit cell and Primitive cell,
	3 rd	Fundamental types of lattices: two-dimensional and three dimensional Bravais lattices
	4 th	Characteristics of Unit cells: Simple Cubic (SC), Body Centred Cubic (BCC), Face Centred Cubic (FCC),
2 nd	5 th	Hexagonal Close Packed (HCP) structure; Simple crystal structures: Sodium Chloride,
	6 th	Cesium Chloride, Diamond,
	7 th	Cubic Zinc Sulfide; Miller Indices
	8 th	Bonding in Solids
3 rd	9 th	Point defects in crystals: Schottky and Frenkel defects.
	10 th	Revision
	11 th	Unit – II: Quantum Theory: Need and origin of Quantum concept,
	12 th	Wave-particle duality
4 th	13 th	Phase velocity
	14 th	group velocity
	15 th	Uncertainty Principle and Applications
	16 th	Schrodinger's wave equation: time-dependent
5 th	17 th	Schrodinger's wave equation time –independent
	18 th	Physical Significance of wave function ψ .
	19 th	Revision
	20 th	Unit – III: Free Electron Theory: Classical free electron theory:
6 th	21 st	electrical conductivity in metals
	22 nd	electrical conductivity in metals
	23 rd	thermal conductivity in metals,
	24 th	Wiedemann-Franz law
7 th	25 th	success and drawbacks of free electron theory;
	26 th	success and drawbacks of free electron theory;

	27 th	Quantum free electron theory: wave function,
	28 th	eigen values
8 th	29 th	Fermi-Dirac distribution function,
	30 th	Density of states
	31 st	Fermi energy and its importance
	32 nd	Thermionic Emission (qualitative).
9 th	33 rd	Thermionic Emission (qualitative).
	34 th	Revision of free electron theory
	35 th	Band theory of Solids: Bloch theorem
	36 th	Kronig-Penney Model (qualitative),
10 th	37 th	Kronig-Penney Model (qualitative),
	38 th	E versus k diagram, Brillouin Zones,
	39 th	E versus k diagram, Brillouin Zones,
	40 th	Concept of effective mass of electron,
11 th	41 st	Energy levels and energy bands,
	42 nd	Energy levels and energy bands,
	43 rd	Distinction between metals, insulators and semiconductors
	44 th	Hall effect and its Applications.
12 th	45 th	Hall effect and its Applications.
	46 th	Revision of band theory of solids
	47 th	Unit –IV: Superconductivity: Introduction, General features of Superconductors
	48 th	Meissner effect,
13 th	49 th	Types of superconductors
	50 th	Elements of BCS theory,
	51 st	London equations,
	52 nd	Applications of superconductivity.
14 th	53 rd	Revision of superconductivity
	54 th	Nanomaterials: Introduction
	55 th	Synthesis of nanomaterials: Top-down and Bottom-up approach,
	56 th	Sol-Gel and Ball Milling methods
15 th	57 th	Properties of Nanomaterials
	58 th	Applications of Nanomaterials.
	59 th	Revision of Nanomaterials
	60 th	Revision & Problems

Lesson Plan

Name of the Faculty : Mr.Ajay Singh / Mr.Nafe Singh
Discipline : Applied Science & Humanities Department
Semester : 2nd
Subject : Applied Physics Lab-II (AS-106N)
Lesson plan : 15 Weeks (From January,2018 to April,2018)
Lecture per Week (in Hours): Lectures-02

Week	Practical	
	Practical Day	Topic
1 st	1.	To find the frequency of ultrasonic waves by Piezoelectric methods.
2 nd	2.	To find the value of e/m for electrons by Helical method.
3 rd	3.	To find the ionisation potential of Argon/Mercury using a Thyatron tube.
4 th	4.	To study the variation of magnetic field with distance and to find the radius of coil by Stewart and Gee's apparatus.
5 th	5.	To study the characteristics of (Cu-Fe, Cu-Constantan) thermocouple.
6 th	6.	To find the value of Planck's constant by using photoelectric cell.
7 th	7.	To find the value of coefficient of self inductance by using a Rayleigh bridge.
8 th	8.	To find the value of Hall Coefficient of semiconductor.
9 th	9.	To study the V-I characteristics of a p-n diode.
10 th	10.	To find the band gap of intrinsic semiconductor using four probe method.
11 th	11.	To calculate the hysteresis loss by tracing a B-H curve.
12 th	12.	To verify Richerdson thermionic equation.
13 th	13.	To find the flashing and quenching potential of Argon and to find the capacitance of unknown capacitor.
14 th	14.	To find the temperature coefficient of resistance by using Pt resistance thermometer by post office box.

LESSON PLAN

Name : Mr. Amit kumar (Theory)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Manufacturing Tech. & Process (ME-101N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit – I: Introduction to Manufacturing Processes and their Classification
	2 nd	Industrial Safety; Introduction.
	3 rd	Types of Accidents, Causes and Common Sources of Accidents.
	4 th	Methods of Safety, First Aid.
2 nd	5 th	Engineering Materials; General Properties and Applications of Engineering Materials,
	6 th	Mild Steel, Medium Carbon Steel,
	7 th	High Carbon Steel, High Speed Steel and Cast Iron.
	8 th	Revision of manufacturing process.
3 rd	9 th	Unit – II: Foundry: Introduction to Casting Processes.
	10 th	Basic Steps in Casting Process, Pattern and use of pattern.
	11 th	Types of Patterns, Pattern Allowances.
	12 th	Risers, Runners, Gates, Moulding Sand and its composition.
4 th	13 th	Sand Preparation, Molding Methods
	14 th	Core Sands and Core Making,

	15 th	Core Assembly
	16 th	Mold Assembly.
5 th	17 th	Melting (Cupola) and Pouring
	18 th	Melting (Cupola) and Pouring; Fettling
	19 th	Casting Defects and Remedies.
	20 th	Revision
6 th	21 st	Unit – III :Cold Working (Sheet Metal Work) Sheet Metal Operations
	22 nd	Layout Marking, Shearing, Punching,
	23 rd	Blanking, Piercing, Forming,
	24 th	Bending and Joining, Advantages and Limitations
7 th	25 th	Hot Working Processes: Introduction to Hot Working.
	26 th	Principles of Hot Working Processes,
	27 th	Forging, Rolling, Extrusion, Wire Drawing.
	28 th	Plant Layout: Objectives of Layout
8 th	29 th	Objectives of Layout
	30 th	Types of Plant Layout
	31 st	Types of Plant Layout
	32 nd	Types of Plant Layout
9 th	33 rd	Types of Plant Layout
	34 th	Revision of plant layout
	35 th	Revision of sheet metal work
	36 th	Unit –IV: Introduction to Machine Tools
10 th	37 th	Specifications and Uses of commonly used Machine Tools

	38 th	Specifications and Uses of commonly used Machine Tools
	39 th	Lathe machine
	40 th	Lathe machine parts
11 th	41 st	Lathe machine operation,
	42 nd	Milling machine,
	43 rd	Milling machine parts,
	44 th	Milling machine operation,
12 th	45 th	Drilling machine
	46 th	Drilling machine parts
	47 th	Drilling machine operations.
	48 th	Introduction to Metal Cutting
13 th	49 th	Nomenclature of a Single Points Cutting Tool
	50 th	Tool Wear.
	51 st	Mechanics of Chips Formations,
	52 nd	Type of Chips , Use of Coolants in machining.
14 th	53 rd	Welding: Introduction to Welding, Classification of Welding Processes
	54 th	Gas Welding: Oxy-Acetylene Welding
	55 th	Resistance Welding; Spot and Seam Welding
	56 th	Arc Welding: Metal Arc, TIG & MIG Welding,
15 th	57 th	Welding Defects and Remedies
	58 th	Soldering & Brazing.
	59 th	Revision
	60 th	Revision & Problems

Lesson Plan

Name of the Faculty : **Ms. Arti**

Discipline : **Electronics and Communication Engineering**

Semester : **2nd**

Subject : **Electrical Technology Fundamentals (EE-101N)**

Lesson plan : **12 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours): **Lectures-04**

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1.	Unit 1: Introduction to subject and basic definitions.
	2.	Ohm's law and Kirchhoff's Current law and Voltage law
	3.	Mesh Analysis and applied to DC Ckts. with examples
	4.	Nodal Analysis and applied to DC ckts with examples
2 nd	5.	Thevenin theorem with example
	6.	Norton theorem with example
	7.	Superposition theorem with example
	8.	Max. Power transfer theorem
3 rd	9.	Star Delta Conversion for dc ckt.
	10.	Assignment 1: Numericals on D.C.Theorems
	11.	Test 1: Unit 1
	12.	Unit 2: Introduction to AC ckt, with basic definitions including Avg. Value & RMS value
4 th	13.	Phasor representation, phase and phase difference
	14.	Behavior of pure R, L and C in AC ckt
	15.	R-L series ckt
	16.	Power factor and its importance
5 th	17.	Contd. Power factor and its importance
	18.	Complex power
	19.	R-C series ckt
	20.	R-L-C series resonance ckt
6 th	21.	Phasor method to solve Parallel ckts
	22.	j-method to solve parallel ckt
	23.	Contd... j-method to solve parallel ckt
	24.	R-L-C parallel resonance.

7 th	25.	Assignment 2 : Numericals on AC Series and Parallel ckts
	26.	Test 2: Unit 2
	27.	Unit 3: Introduction to polyphase ckt and advantages of 3-phase over 1-phase
	28.	Star connection for 3-phase
8 th	29.	Delta connection for 3-phase and Power in 3-phase ckt
	30.	3-phase Power measurement by two wattmeter method under balanced load
	31.	Introduction to magnetic ckts, Fleming's left hand and right hand rule.
	32.	Relation b/w magnetic flux, mmf, reluctance, Hyteresis and eddy current losses and their minimization.
9 th	33.	Basic principle, construction and working of Transformer
	34.	Transformer on DC supply and emf equation for 1-pahse transformer
	35.	Transformer on no load and Transformer on load with phasor dig.
	36.	Voltage regulation, Losses in transformers
10 th	37.	Efficiency of 1-phase transformer and condition for max. eff.
	38.	1-phase auto transformer
	39.	Test 3 : Unit 3
	40.	Unit 4 : Introduction to 3-phase induction motor, working and construction of motor
11 th	41.	Revolving field theory
	42.	Slip concept and torque speed curve
	43.	1-phase induction motor
	44.	Construction and working of DC motor and generator
12 th	45.	Types of dc machines
	46.	Emf equation and torque equation of dc machine
	47.	Characteristics of dc motors, Speed control of dc motors
	48.	Test 4 : Unit 4

Text Books:

1. Vijay Kumar Garg, Basic Electrical Engg: A complete Solution, Wiley India Ltd.
2. Rajendra Prasad, Electrical Engg. Fundamentals, PHI Pub.

Reference Books:

1. S.K. Sahdev, Basic Electrical Engg., Pearson Education
2. PV Prasad, Basic Electrical Engg, Sivangaraju, Cengage Learning Pub.
3. Bobrow, Electrical Engg. Fundamentals, Oxford Univ. Press
4. Kulshreshtha, Basic Electrical Engg., McGraw Hill Pub.

LESSON PLAN

Name : Kamini Narula (Theory)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Applied Chemistry (AS-103N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1 st	1 st	UNIT 1: First, second, third and zeroth law of thermodynamics
	2 nd	concept of entropy (for reversible and irreversible process, of phase transition)
	3 rd	concept of entropy(of ideal gases)
2 nd	4 th	free energy, work function
	5 th	chemical potential, Gibb's Helmholtz equation
	6 th	Clausius-Clapeyron equation
3 rd	7 th	Related Numericals,revision test
	8 th	Phase rule, terminology
	9 th	derivation of Gibbs phase rule, phase diagrams of water system
4 th	10 th	sulphur system
	11 th	(Pb-Ag) system, (Zn-Mg) system
	12 th	(Na-K) system, numerical problems
5 th	13 th	UNIT 2: Water and its treatment: Hardness of water and its determination by EDTA
	14 th	alkalinity and its determination
	15 th	related numerical problems
6 th	16 th	Scale formation and sludge formation (composition, properties and methods of prevention)
	17 th	Water softening by ion exchange
	18 th	desalination (reverse osmosis, electro dialysis)
7 th	19 th	Green Chemistry: Definition and concept
	20 th	Twelve principles of green chemistry
	21 st	Alternate solvents-ionic liquids
8 th	22 nd	super critical fluid (SCF) system
	23 rd	derivatized and immobilized solvent materials
	24 th	Revision Test

9 th	25 th	UNIT 3: Corrosion: Dry and Wet corrosion
	26 th	Electrochemical theory of corrosion
	27 th	Pitting, water-line corrosion
10 th	28 th	differential aeration, stress corrosion
	29 th	factors affecting corrosion
	30 th	preventive measures (proper design and material selection)
11 th	31 st	cathodic and anodic protection
	32 nd	Revision Test
	33 rd	Lubricants: Mechanism of thin and thick layer lubrication
12 th	34 th	classification of lubricants
	35 th	important properties of lubricants (viscosity index, flash and fire point)
	36 th	saponification number, pour point, iodine number
13 th	37 th	Greases as lubricants: consistency and drop point test
	38 th	UNIT 4: Ceramics (brief introduction of clays, silica)
	39 th	feldspar, porcelain and Vitreous Enamels
14 th	40 th	cement (introduction, raw materials, manufacture of portland cement)
	41 st	Analysis of cement
	42 nd	Nanoscale materials (introduction, properties of nanomaterials, brief discussion of nanocrystals)
15 th	43 rd	clusters, fullerenes, carbon nanotubes
	44 th	Dendrimers, nanowires, nanocomposites
	45 th	Revision test

LESSON PLAN

Name :Mr. Kulvinder Singh (Theory)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Engg. Drawing and Graphics (ME-105N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit – I: Introduction, Projection of Points: Introduction to Engineering Equipment, Elements of Engineering Drawing
	2 nd	Types of Lines
	3 rd	Various types of projections, First and third angle systems of orthographic projections.
	4 th	Projections of points in different quadrants
2 nd	5 th	Shortest distance of Point from reference line.
	6 th	Projections of straight lines
	7 th	Line parallel to one or both reference planes,
	8 th	Line contained by one or both reference planes
3 rd	9 th	Line perpendicular to one of the reference planes
	10 th	Line inclined to one plane but parallel to the other plane
	11 th	Line inclined to both the reference planes
	12 th	True length of a line and its inclinations with reference planes, traces of a line.

4 th	13 th	Unit –II : Projection of planes: Introduction,
	14 th	Types of planes and their specification
	15 th	Projection of planes by change of position method only.
	16 th	Projection of plane perpendicular to reference plane.
5 th	17 th	projection of plane perpendicular to a plane and parallel to another plane
	18 th	projection of plane parallel to one plane and inclined to the other plane
	19 th	Projection of plane perpendicular to a plane, with axis inclined to both the planes.
	20 th	Projection of planes contained by profile plane.
6 th	21 st	Projection of Solids: Types of solids,
	22 nd	Projections of polyhedral solids in simple positions with axis perpendicular to a plane,
	23 rd	Projections of polyhedral solids with axis parallel to both planes
	24 th	Projections of polyhedral solids with axis parallel to one plane and inclined to the other.
7 th	25 th	Projection of Solids of revolution – in simple positions with axis perpendicular to a plane,
	26 th	Projection of Solids of revolution with axis parallel to both planes,
	27 th	Projection of Solids of revolution with axis parallel to one and inclined to the other.
	28 th	Projection of Solids of revolution with axis inclined to both planes.
8 th	29 th	Unit –III : Section of Solids: Basics
	30 th	Introduction to section planes.
	31 st	Apparent section, true section.

	32 nd	Sectional view, need for sectional view, cutting plane, cutting plane line.
9 th	33 rd	Sectional view of simple solids such as Prism, Cylinders, in simple position
	34 th	Sectional view of simple solids such as Pyramids and Cones in simple position
	35 th	Section plane perpendicular to one plane and parallel to the other
	36 th	Section plane perpendicular to one plane and inclined to the other.
10 th	37 th	Development of Surfaces: Basics
	38 th	Development of surface of cubes in simple positions
	39 th	Development of surface of cylinders in simple positions
	40 th	Development of surface of prisms in simple positions
11 th	41 st	Development of surface of pyramids in simple Positions
	42 nd	Development of surface of prisms in truncated positions
	43 rd	Development of surface of pyramids in truncated Positions
	44 th	Development of surface of frustum of pyramids in simple Positions
12 th	45 th	Unit –IV : Orthographic views (First Angle Projection Only): Basics
	46 th	Three orthographic views of solids
	47 th	Concept of hidden edges.
	48 th	Concept of symmetrical axis
13 th	49 th	Orthographic Views of Square Nuts.
	50 th	Orthographic Views of Hexagonal Nuts
	51 st	Orthographic Views of Square Bolt
	52 nd	Orthographic Views of Hexagonal Bolt

14 th	53 rd	AUTOCAD basics: Cartesian and Polar Co-ordinate system,
	54 th	Absolute and Relative Coordinates systems.
	55 th	Basic Commands: Line, Point, Rectangle, Polygon
	56 th	Circle, Arc, Ellipse, Polyline
15 th	57 th	Basic editing Commands: Basic Object Selection Methods, Window and Crossing Window
	58 th	Erase, Move, Copy, Offset, Fillet, Chamfer, Trim, Extend, Mirror
	59 th	Display Commands: Zoom, Pan, Redraw, and Regenerate
	60 th	Simple dimensioning and text, simple exercises.

Lesson Plan

Name : Ms Ruchika

Discipline: Electronics and Communication Department

Semester: 2nd (sec-C, D)

Subject: Basics Electronics Lab (ECE-103N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Practicals-02

Week	Practical	
	Practical Day	Topic
1	1	Identification, specification, Testing of RLC components, potentiometers, switches, breadboard, diodes, BJTs, JFETs, MOSFETs, power transistors, SCRs and LEDs.
2	2	Study and operation of digital multimeter, Function generator, regulated power supply, CRO; amplitude, phase and frequency of sinusoidal signals on CRO.
3	3	Viva-Voce
4	4	To study and perform the experimental verification of VI characteristics of PN diode in forward and reverse bias.
5	5	To study and perform the experimental verification of half wave and full wave rectifier and calculate its ripple factor, efficiency and PIV.
6	6	Viva-Voce
7	7	To study and perform the experimental verification of zener diode as voltage regulator and calculate its parameter.
8	8	To study and perform the experimental verification of input-output characteristics of BJT in CE configuration.
9	9	To study and perform the experimental verification of Op-amp as inverting, non-inverting, differential amplifier and calculate its voltage gain
10	10	Viva-Voce
11	11	To study and perform the experimental verification of summing and difference amplifier and calculate its voltage gain.
12	12	To study and perform the experimental verification of IV characteristics of JFET and MOSFET and calculate all its parameters.
13	13	Viva -Voce
14	14	Simulation of simple electronics circuit and analyzing its input and output waveforms using any of EDA tool.
15	15	Internal Viva

LESSON PLAN

Name:Ms.Ritika Gera

Discipline:Applied sciences and humanities

Semester:2nd

Lesson plan duration: 15 weeks (from January, 2018 to April, 2018)

Subject:Fundamentals of Biotechnology (BT-101N)(Theory)

Work Load:Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit:1 Introduction to Biotechnology (definitions and areas)
	2 nd	Applications of Biotechnology related to daily life
	3 rd	Bioethics and its need
	4 th	Introduction to living world: Concept and definition of Biology
2 nd	5 th	Characteristic features of living organisms
	6 th	Cell ultra-structure: Structure of Prokaryotic cell(Bacteria)
	7 th	Structure of Eukaryotic Cell(Plant and Animal cell)
	8 th	Functions of cell organelles: Nucleus, mitochondria
3 rd	9 th	Revision test:1
	10 th	Chloroplast, Ribosomes (structure and functions)
	11 th	Endoplasmic Reticulum and other organelles
	12 th	Difference between: Prokaryotic and Eukaryotic cell, Animal and Plant cell
4 th	13 th	Revision test:2
	14 th	Introduction to biomolecules: Definition, general classification of carbohydrates
	15 th	Important functions of carbohydrates
	16 th	Lipids (Types and importance)
5 th	17 th	Proteins (structure and importance)
	18 th	Nucleic acids: DNA (Structure and form)
	19 th	RNA (Structure and form)
	20 th	Vitamins (Types and importance)
6 th	21 st	Hormones (Types and importance)
	22 nd	Enzymes and its industrial applications
	23 rd	Revision test:3
	24 th	Unit: 2 Cell Division –Mitosis and its utility to living systems
7 th	25 th	Meiosis and its genetic significance
	26 th	Gene: Concept, location, Definition and structure
	27 th	Introduction to Replication
	28 th	Transcription (definition and mechanism)

8 th	29 th	Translation (definition and mechanism)
	30 th	Mutations and its types
	31 st	Genetic disorders
	32 nd	Human traits: Genetics of Blood Groups
9 th	33 rd	Diabetes type I and II (causes and remedies)
	34 th	Revision test:3
	35 th	Morphology and pathogenicity of Bacteria
	36 th	Fungi (importance and harmfulness)
10 th	37 th	Virus (importance and harmfulness)
	38 th	Protozoa (importance and harmfulness)
	39 th	Unit :3 Concepts of Genetic Engineering: Definition and Applications
	40 th	Tools used in Recombinant DNA technology
11 th	41 st	Plasmids as nature's interlopers
	42 nd	Vectors as gene transfer vehicles
	43 rd	Restriction enzymes as nature's pinking shears
	44 th	Applications of Genetic engineering.
12 th	45 th	Revision test:4
	46 th	Transgenesis and methods of production of transgenic organism
	47 th	Production and significance of Transgenic plants
	48 th	Production and significance of Transgenic animals
13 th	49 th	Basic concept of genetically modified organisms and significance
	50 th	Unit :4 Applications of Biotechnology in Agriculture
	51 st	Applications of Biotechnology in Medicine
	52 nd	Applications of Biotechnology in Environment
14 th	53 rd	Applications of Biotechnology in Industry
	54 th	Applications of Biotechnology in Forensic Science
	55 th	Revision test :5
	56 th	Role of Biology in Information Technology (Bioinformatics)
15 th	57 th	Nano biotechnology and its applications
	58 th	Micro-electromechanical systems (Bio-MEMS)
	59 th	Biosensors (concept and uses)
	60 th	Ethical issues related to Biotechnology

Lesson Plan

Name: Kamini Narula/ Chander Mohan

Discipline:-Applied Science & Humanities

Semester:- 2nd

Subject:-Chemistry Lab (AS-109N)

Lesson Plan Duration:-15 weeks (From Jan-2018 to April-2018)

Work Load: Labs-02

Week	Labs Day	Name of Experiments
1st	1 st	Determination of Temporary and Permanent Hardness by EDTA Method
	2 nd	
2 nd	1 st	Determination of Ca ²⁺ and Mg ²⁺ Hardness of water by EDTA Method
	2 nd	
3 rd	1 st	Determination of Alkalinity of given water sample
	2 nd	
4 th	1 st	Determination of Dissolved Oxygen (DO) in given water Sample.
	2 nd	
5 th	1 st	Determination of Viscosity of Lubricants by Redwood Viscometer No (1 & 2)
	2 nd	
6 th	1 st	To Determine the Strength of HCl solution by titrating it with NaOH solution Conductometrically.
	2 nd	
7 th	1 st	To Determine the Coefficient of Viscosity of a Liquid by Ostwald Viscometer
	2 nd	
8 th	1 st	To Determine the surface Tension of a given Liquid by Means of Stalagmometer by Drop number Method.
	2 nd	
9 th	1 st	To Determine the Strength of strong Acid by Titrating it with strong Base using pH Meter.
	2 nd	

Week	Labs Day	Name of Experiments
10 th	1 st	To Determining the Total Iron Content (Fe ²⁺ and Fe ³⁺) in an Iron ore by Self Indicator Method.
	2 nd	
11 th	1 st	To Determine the Concentration of KmnO ₄ solution Spectrophotometrically.
	2 nd	
12 th	1 st	To Determining the Total Iron Content (Fe ²⁺ and Fe ³⁺) in an Iron ore by Internal Indicator Method.
	2 nd	
13 th	1 st	.Viva- Voce
	2 nd	
14 th	1 st	Practical Performance Test
	2 nd	
15 th	1 st	Practical Performance Test
	2 nd	

Lesson Plan (Lab)

Name of the Faculty : **Mr. Vivek Chhabra**

Discipline : **Applied Science**

Semester : **2nd**

Subject : **Computer Programming Lab (CSE-103N)**

Lesson plan : **15 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours): **Lectures-02**

Week	Practical	
	Practical Day	Topic
1 st	1.	Introduction to C-Language & Basics of Programming Write a program to find the sum of individual digits of a positive integer.
2 nd	2.	Introduction to Loops Write a program to generate the first n terms of the Fibonacci sequence. Write a program to generate all the prime numbers between 1 and n, where n is the input value given by the user.
3 rd	3.	Introduction to Conditional Programming Write a program to find the roots of a quadratic equation.
4 th	4.	Introduction to Functions in C Write a function to generate Pascal's triangle. Write a function to construct a pyramid of numbers.
5 th	5.	Write programs that use both recursive and non-recursive functions for the following a. To find the factorial of a given integer. b. To find the GCD (greatest common divisor) of two given integers.
6 th	6.	Introduction to Arrays (1-D,2-D & Multidimensional) Write a program for addition of Two Matrices Write a program for calculating transpose of a matrix. Write a program for Matrix multiplication by checking compatibility Write a C functions to find both the largest and smallest number of an array of integers.
7 th	7.	Strings & Its Operations:- Write a function that uses functions to perform the count the lines, words and characters in a given text.
8 th	8.	Write a program to read a string and write it in reverse order Write a program to concatenate two strings Write a program to check that the input string is a palindrome or not.
9 th	9.	Pointers, Structure & Union:-

		Write a program to print the element of array using pointers Write a program to implement call by reference
10 th	10.	Write a program to explores the use of structures, union and other user defined variables
11 th	11.	File Handling:- Write a program which copies one file to another. Write a program to reverse the first n characters in a file.
12 th	12.	Revision
13 th	13.	Revision
14 th	14.	Viva
15 th	15.	Viva

Text Books:

T1:Pradip Dey and Manas Ghose, Computer Fundamental and Programming in C, Oxford Pub.

T2: Vikas Gupta, Computer Concepts and C Programming, Dreamtech.

Reference Books/Websites:

R1:Introduction to Computer & Programming in C by J.B Dixit

R2: Yashwant Kanetker, Let us C, BPB Publications.

Lesson Plan

Name of the Faculty : **Mr. Amit Kumar**
Discipline : **Applied Science**
Semester : **2nd**
Subject : **Electrical Technology Lab (EE-103N)**
Lesson plan : **12 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours): **Lectures-02**

Week	Practical	
	Practical Day	Topic
1 st	1.	Introduction to Electrical technology lab and instruments.
2 nd	2.	To verify KVL and KCL.
3 rd	3.	To verify Superposition theorem on a linear circuit with at least one voltage & one current source.
4 th	4.	To verify Thevenin's Theorem on a linear circuit with at least one voltage & one current source
5 th	5.	To study frequency response of a series R-L-C circuit on CRO and determine resonant frequency & Q- factor for various Values of R, L, and C.
6 th	6.	To study frequency response of a parallel R-L-C circuit on CRO and determine resonant frequency & Q -Factor for various values of R, L, and C.
7 th	7.	To perform direct load test on a single phase transformer and plot efficiency v/s load characteristic.
8 th	8.	To perform O.C. and S.C. tests on a single phase transformer.
9 th	9.	To calibrate a single phase energy meter.
10 th	10.	To perform starting & reversal of direction of a three phase induction motor.
11 th	11.	Measurement of power in a 3 phase balanced system by two watt meter method.
12 th	12.	Viva

Text Books:

1. Vijay Kumar Garg, Basic Electrical Engg: A complete Solution, Wiley India Ltd.
2. Rajendra Prasad, Electrical Engg. Fundamentals, PHI Pub.

Reference Books:

1. S.K. Sahdev, Basic Electrical Engg., Pearson Education
2. PV Prasad, Basic Electrical Engg, Sivangaraju, Cengage Learning Pub.
3. Bobrow, Electrical Engg. Fundamentals, Oxford Univ. Press
4. Kulshreshtha, Basic Electrical Engg., McGraw Hill Pub.

LESSON PLAN(Theory)

Name :Mr. VivekChhabra

Discipline: Applied Sciences & Humanities

Semester:2nd

Subject:Introduction to Computer Programming (CSE-101N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Overview of Computers: Block diagram and its description
	2 nd	Number systems, Arithmetic of Number Systems
	3 rd	-do-
2 nd	4 th	-do-
	5 th	-do-
	6 th	Computer Hardware: I/O Devices
3 rd	7 th	-do-
	8 th	Memory :Main Memory & Secondary Memory
	9 th	-do-
4 th	10 th	Different levels of PL: High Level language, Assembly language, Machine language
	11 th	Introduction to Compiler, Interpreter, Debugger, Linker, Loader, Assembler.
	12 th	Algorithm & related examples
5 th	13 th	Flowcharts & Related Examples
	14 th	Revision of Important Concepts of 1 st Unit
	15 th	Introduction to Computer Programming Language :C Elements of C, Data types
6 th	16 th	Operators in C : Their precedence & associativity of operators
	17 th	Input & Output Statements in C, Structure of C- Program
	18 th	Programming examples
7 th	19 th	Introduction to Conditional Programming In C, Various Conditional Constructs in C
	20 th	Programming Examples of Conditional Constructs
	21 st	-do-
8 th	22 nd	Introduction to Loops in C: Various Loop Structures like While,Do-While,For
	23 rd	Programming Examples of Loops
	24 th	-do-

9 th	25 th	Break , Continue,goto statements in C & Their practical application
	26 th	Revision of Important Concepts of 2 nd Unit
	27 th	Introduction to Arrays in C (1-D,2-D & Multidimensional)
10 th	28 th	Processing of Arrays with programming examples
	29 th	String Handling in C, String Library Functions
	30 th	Programming Examples of String
11 th	31 st	Functions in C, Definition, Prototype of Functions
	32 nd	Parameter Passing Techniques (Call By Value, Call By Reference)
	33 rd	Recursive Functions ,Passing Array to a Function
12 th	34 th	Programming Examples of Functions & Related Concepts
	35 th	Revision of Important Concepts of 3 rd Unit
	36 th	Pointers in C : Declaration, Initialization & Their Usage
13 th	37 th	Pointers & Functions using programming examples
	38 th	Pointers & Strings using programming examples
	39 th	Structures in C
14 th	40 th	Union in C
	41 st	Pointers with Structure & Union
	42 nd	File Handling in C
15 th	43 rd	Programming examples
	44 th	Revision of important concepts of 4 th Unit
	45 th	Revision Test

Text Books:

T1:PradipDey and ManasGhose, Computer Fundamental and Programming in C, Oxford Pub.

T2: Vikas Gupta, Computer Concepts and C Programming, Dreamtech.

Reference Books/Websites:

R1:Introduction to Computer & Programming in C by J.B Dixit

R2:YashwantKanetker, Let us C, BPB Publications.

Lesson Plan

Name of the Faculty : Mr. Manoj Pahuja / Mr. Nafe Singh
Discipline : Applied Science & Humanities Department
Semester : 2nd
Subject : Applied Physics Lab-II (AS-106N)
Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours): Lectures-02

Week	Practical	
	Practical Day	Topic
1 st	1.	To find the frequency of ultrasonic waves by Piezoelectric methods.
2 nd	2.	To find the value of e/m for electrons by Helical method.
3 rd	3.	To find the ionisation potential of Argon/Mercury using a Thyatron tube.
4 th	4.	To study the variation of magnetic field with distance and to find the radius of coil by Stewart and Gee's apparatus.
5 th	5.	To study the characteristics of (Cu-Fe, Cu-Constantan) thermocouple.
6 th	6.	To find the value of Planck's constant by using photoelectric cell.
7 th	7.	To find the value of coefficient of self inductance by using a Rayleigh bridge.
8 th	8.	To find the value of Hall Coefficient of semiconductor.
9 th	9.	To study the V-I characteristics of a p-n diode.
10 th	10.	To find the band gap of intrinsic semiconductor using four probe method.
11 th	11.	To calculate the hysteresis loss by tracing a B-H curve.
12 th	12.	To verify Richardson thermionic equation.
13 th	13.	To find the flashing and quenching potential of Argon and to find the capacitance of unknown capacitor.
14 th	14.	To find the temperature coefficient of resistance by using Pt resistance thermometer by post office box.

LESSON PLAN

Name : Mr. Manoj Pahuja (Theory)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Applied Physics-II (AS-102N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit – I: Crystal Structure: Crystalline and Amorphous solids, Crystal Structure: lattice translation vector, symmetry operations, space lattice,
	2 nd	basis; Unit cell and Primitive cell,
	3 rd	Fundamental types of lattices: two-dimensional and three dimensional Bravais lattices
	4 th	Characteristics of Unit cells: Simple Cubic (SC), Body Centred Cubic (BCC), Face Centred Cubic (FCC),
2 nd	5 th	Hexagonal Close Packed (HCP) structure; Simple crystal structures: Sodium Chloride,
	6 th	Cesium Chloride, Diamond,
	7 th	Cubic Zinc Sulfide; Miller Indices
	8 th	Bonding in Solids
3 rd	9 th	Point defects in crystals: Schottky and Frenkel defects.
	10 th	Revision
	11 th	Unit – II: Quantum Theory: Need and origin of Quantum concept,
	12 th	Wave-particle duality
4 th	13 th	Phase velocity
	14 th	group velocity
	15 th	Uncertainty Principle and Applications
	16 th	Schrodinger's wave equation: time-dependent
5 th	17 th	Schrodinger's wave equation time –independent
	18 th	Physical Significance of wave function ψ .
	19 th	Revision
	20 th	Unit – III: Free Electron Theory: Classical free electron theory:
6 th	21 st	electrical conductivity in metals
	22 nd	electrical conductivity in metals
	23 rd	thermal conductivity in metals,
	24 th	Wiedemann-Franz law
7 th	25 th	success and drawbacks of free electron theory;
	26 th	success and drawbacks of free electron theory;

	27 th	Quantum free electron theory: wave function,
	28 th	eigen values
8 th	29 th	Fermi-Dirac distribution function,
	30 th	Density of states
	31 st	Fermi energy and its importance
	32 nd	Thermionic Emission (qualitative).
9 th	33 rd	Thermionic Emission (qualitative).
	34 th	Revision of free electron theory
	35 th	Band theory of Solids: Bloch theorem
	36 th	Kronig-Penney Model (qualitative),
10 th	37 th	Kronig-Penney Model (qualitative),
	38 th	E versus k diagram, Brillouin Zones,
	39 th	E versus k diagram, Brillouin Zones,
	40 th	Concept of effective mass of electron,
11 th	41 st	Energy levels and energy bands,
	42 nd	Energy levels and energy bands,
	43 rd	Distinction between metals, insulators and semiconductors
	44 th	Hall effect and its Applications.
12 th	45 th	Hall effect and its Applications.
	46 th	Revision of band theory of solids
	47 th	Unit –IV: Superconductivity: Introduction, General features of Superconductors
	48 th	Meissner effect,
13 th	49 th	Types of superconductors
	50 th	Elements of BCS theory,
	51 st	London equations,
	52 nd	Applications of superconductivity.
14 th	53 rd	Revision of superconductivity
	54 th	Nanomaterials: Introduction
	55 th	Synthesis of nanomaterials: Top-down and Bottom-up approach,
	56 th	Sol-Gel and Ball Milling methods
15 th	57 th	Properties of Nanomaterials
	58 th	Applications of Nanomaterials.
	59 th	Revision of Nanomaterials
	60 th	Revision & Problems

LESSON PLAN

Name : Ms. Megha Goel (Theory)

Discipline: Applied sciences and humanities Department

Semester: 2nd

Subject: Maths(AS-105 N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit - I Theory of Equations: Introduction, formation of equations.
	2 nd	Relation between roots and coefficients
	3 rd	Reciprocal Equations, Transformation of equations
	4 th	Integral Calculus: Beta and Gamma functions,
2 nd	5 th	Evaluation of integrals by Leibnitz's rule (Differentiation under the Integral sign)
	6 th	REVISION TEST.
	7 th	Unit - II Introduction of Laplace Transforms and its applications:
	8 th	Laplace transforms: Basic concepts, Existence conditions,
3 rd	9 th	transform of elementary functions,
	10 th	Properties of Laplace transforms,
	11 th	transform of derivatives and integrals,
	12 th	multiplication and division property,
4 th	13 th	Evaluation of integrals by Laplace transforms,
	14 th	Inverse transforms,
	15 th	The Convolution theorem,
	16 th	Unit step function, second shifting theorem,
5 th	17 th	Dirac's Delta function
	18 th	Application to linear differential equations and simultaneous linear differential equations with constant coefficients.
	19 th	REVISION TEST.
	20 th	Unit – III

		Introduction to differential equations..
6 th	21 st	Exact differential equations,
	22 nd	Equations reducible to exact differential equations 1
	23 rd	Equations reducible to exact differential equations 2
	24 th	Equations reducible to exact differential equations 3
7 th	25 th	Equations reducible to exact differential equations 4
	26 th	Applications of differential equations of first order
	27 th	equations of first order and first degree to simple electric circuits
	28 th	Newton's law of cooling
8 th	29 th	heat flow
	30 th	orthogonal trajectories
	31 st	Linear differential equations of second and higher order-1
	32 nd	Linear differential equations of second and higher order-2
9 th	33 rd	complete solution-1
	34 th	complete solution-2
	35 th	complementary function and particular integral-1
	36 th	complementary function and particular integral-2
	37 th	REVISION TEST.
	39 th	Ordinary Differential Equations and its applications
	40 th	undetermined coefficients to find the particular integral-1
11 th	41 st	undetermined coefficients to find the particular integral-2
	42 nd	Cauchy's and Legendre's linear equation-1
	43 rd	Cauchy's and Legendre's linear equation-2
	44 th	Simultaneous linear equations with constant coefficients-1
12 th	45 th	Simultaneous linear equations with constant coefficients-2
	46 th	REVISION TEST.
	47 th	Unit 4(introduction to vector calculus)
	48 th	Differentiation of Vectors, Scalar and vector point functions,
13 th	49 th	Gradient of a scalar field
	50 th	directional derivative
	51 st	divergence and Curl of a vector field and their physical interpretations-1
	52 nd	divergence and Curl of a vector field and their physical interpretations-2
14 th	53 rd	line integrals, surface integral, volume integral
	54 th	line integrals, surface integral, volume integral-1
	55 th	Green's theorem in the plane,
	56 th	Stoke's Theorem
15 th	57 th	Gauss Divergence Theorem(without proof) and their applications
	58 th	Applications of gauss divergence theorem.

	59 th	REVISION TEST.
	60 th	REVISION TEST.

LESSON PLAN

Name : Mr. Mohit Dhanda (Theory)

Discipline: Electronics & Communication

Semester: 2nd

Subject: Basic of Electronics Engineering (ECE-101N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1 st	1 st	UNIT 1: Active and passive components
	2 nd	Concept of PN Diode
	3 rd	Diode equivalent circuit, Load line
2 nd	4 th	<ul style="list-style-type: none"> • Diode as a switch, breakdown mechanism
	5 th	<ul style="list-style-type: none"> • Zener diode: operation and applications
	6 th	<ul style="list-style-type: none"> • Rectifier circuits
3 rd	7 th	Half wave and full wave rectifier
	8 th	Rectifier calculations and efficiency
	9 th	Photo diode
4 th	10 th	Applications of photo diode
	11 th	LED
	12 th	Revision Test
5 th	13 th	UNIT 2: BIPOLAR JUNCTION TRANSISTOR
	14 th	Different type of transistor, basic operation
	15 th	Input , output characteristic of CC, CE, CB configurations
6 th	16 th	Transistor as a switch and amplifier
	17 th	Biasing of transistor: fixed, self bias
	18 th	Voltage divider biasing
7 th	19 th	Concept of feedback in amplifier
	20 th	Advantages of negative feedback amplifier
	21 st	Oscillator and Barkhausen criteria.
8 th	22 nd	Revision Test
	23 rd	UNIT 3: Operational amplifier
	24 th	<ul style="list-style-type: none"> • Basic block diagram, equivalent circuit
9 th	25 th	<ul style="list-style-type: none"> • Characteristic of Ideal OPAMP, Virtual short
	26 th	Ideal vs practical opamp
	27 th	Configuration of OPAMP: Inverting, non inverting

10 th	28 th	Differential configuration
	29 th	Parameters of OPAMP: abnd width, slew rate, input offset voltage
	30 th	Output offset voltage, CMRR
11 th	31 st	OP-AMP applications
	32 nd	Revision Test
	33 rd	Unit 4: Special semiconductor devices
12 th	34 th	Operation and VI characteristic of MOSFET
	35 th	Concept of N MOSFET, P MOSFET,C- MOSFET
	36 th	Diac characteristics , operation
13 th	37 th	applications of Diac
	38 th	UJT working, VI characteristics.
	39 th	SCR charactersitics
14 th	40 th	Applications of SCR
	41 st	TRIAC : basic concepts
	42 nd	characterstics of SCR
15 th	43 rd	applictaions of SCR
	44 th	applications of SCR
	45 th	Revision Test

LESSON PLAN

Name : Ms. Rupinder Kaur (Theory)

Discipline: Applied Sciences & Humanities

Semester: 2nd

Subject: Technical Communication (HS-101N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1 st	1 st	UNIT 1: Definition of Communication
	2 nd	Process, Types of Communication
	3 rd	Levels & Flow of Communication
2 nd	4 th	<ul style="list-style-type: none"> • Technical Communication • General Communication
	5 th	<ul style="list-style-type: none"> • Definition of Barriers • Noise in the Channel
	6 th	<ul style="list-style-type: none"> • Semantic Gap
3 rd	7 th	Intrapersonal Barrier
	8 th	Interpersonal Barriers
	9 th	Organizational Barrier
4 th	10 th	Causes to Barrier
	11 th	Solutions to Overcome Barriers
	12 th	Revision Test
5 th	13 th	UNIT 2: Listening Skills & its importance
	14 th	Kinds & Traits of Good Listeners
	15 th	Barriers to Listening Skills
6 th	16 th	Speaking & Role of Confidence
	17 th	How to bring Clarity & Fluency
	18 th	Reading Skills & its importance
7 th	19 th	Reading Techniques SQ3R
	20 th	Introduction to Writing Skills
	21 st	Techniques for Effective Writing
8 th	22 nd	Revision Test
	23 rd	UNIT 3: Group Discussion & its Role
	24 th	<ul style="list-style-type: none"> • Types of Group Discussion • Methodology of an effective Group Discussion

9 th	25 th	<ul style="list-style-type: none"> • GD as a Selection Process • Advantages of GD
	26 th	Introduction to Oral Presentation
	27 th	Features of effective Oral presentation
10 th	28 th	Steps of Oral Presentation
	29 th	Introduction to Job Interview
	30 th	Requisites of a Job Interview
11 th	31 st	Body language in a job Interview
	32 nd	Revision Test
	33 rd	Unit 4: Introduction to Technical Letters
12 th	34 th	Importance of Technical Letters
	35 th	Kinds of Technical Letters
	36 th	Formats of Technical Letters
13 th	37 th	Introduction to Job Application
	38 th	Introduction to Covering Letter
	39 th	Format of Job Application
14 th	40 th	Kinds of Resume
	41 st	Formats of Resume
	42 nd	Introduction to Technical Articles
15 th	43 rd	Kinds of Technical Articles
	44 th	Elements of Technical Articles
	45 th	Revision Test

LESSON PLAN

Name : Mr.Sunit goel (Theory)

Discipline: Applied sciences and humanities Department

Semester: 2nd

Subject: Maths(AS-105 N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-04

Week	Theory	
	Lecture Day	Topic
1 st	1 st	Unit - I Theory of Equations: Introduction, formation of equations.
	2 nd	Relation between roots and coefficients
	3 rd	Reciprocal Equations, Transformation of equations
	4 th	Integral Calculus: Beta and Gamma functions,
2 nd	5 th	Evaluation of integrals by Leibnitz's rule (Differentiation under the Integral sign)
	6 th	RAVISION TEST.
	7 th	Unit - II Introduction of Laplace Transforms and its applications:
	8 th	Laplace transforms: Basic concepts, Existence conditions,
3 rd	9 th	transform of elementary functions,
	10 th	Properties of Laplace transforms,
	11 th	transform of derivatives and integrals,
	12 th	multiplication and division property,
4 th	13 th	Evaluation of integrals by Laplace transforms,
	14 th	Inverse transforms,
	15 th	The Convolution theorem,
	16 th	Unit step function, second shifting theorem,
5 th	17 th	Dirac's Delta function
	18 th	Application to linear differential equations and simultaneous linear differential equations with constant coefficients.
	19 th	Revision test.
	20 th	Unit – III

		Introduction to differential equations..
6 th	21 st	Exact differential equations,
	22 nd	Equations reducible to exact differential equations 1
	23 rd	Equations reducible to exact differential equations 2
	24 th	Equations reducible to exact differential equations 3
7 th	25 th	Equations reducible to exact differential equations 4
	26 th	Applications of differential equations of first order
	27 th	equations of first order and first degree to simple electric circuits
	28 th	Newton's law of cooling
8 th	29 th	heat flow
	30 th	orthogonal trajectories
	31 st	Linear differential equations of second and higher order-1
	32 nd	Linear differential equations of second and higher order-2
9 th	33 rd	complete solution-1
	34 th	complete solution-2
	35 th	complementary function and particular integral-1
	36 th	complementary function and particular integral-2
	37 th	Revision test
	39 th	Ordinary Differential Equations and its applications
	40 th	undetermined coefficients to find the particular integral-1
11 th	41 st	undetermined coefficients to find the particular integral-2
	42 nd	Cauchy's and Legendre's linear equation-1
	43 rd	Cauchy's and Legendre's linear equation-2
	44 th	Simultaneous linear equations with constant coefficients-1
12 th	45 th	Simultaneous linear equations with constant coefficients-2
	46 th	Revision test.
	47 th	Unit 4(introduction to vector calculus)
	48 th	Differentiation of Vectors, Scalar and vector point functions,
13 th	49 th	Gradient of a scalar field
	50 th	directional derivative
	51 st	divergence and Curl of a vector field and their physical interpretations-1
	52 nd	divergence and Curl of a vector field and their physical interpretations-2
14 th	53 rd	line integrals, surface integral, volume integral
	54 th	line integrals, surface integral, volume integral-1
	55 th	Green's theorem in the plane,
	56 th	Stoke's Theorem
15 th	57 th	Gauss Divergence Theorem(without proof) and their applications
	58 th	Applications of gauss divergence theorem.

	59 th	Revision test.
	60 th	Revision test.

LESSON PLAN

Name :Mr. Amit Kumar / R.N. Pandey (Practical)

Discipline: Applied Sciences & Humanities Department

Semester: 2nd

Subject: Engg. Workshop (ME-107N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Practical	
	Practical Day	Topic
1 st	1	To study different types of measuring and marking tools used in workshop
2 nd	2	To study different types of machine tools (lathe, shape, milling, drilling machines)
3 rd	3	To prepare a job on a lathe involving facing, outside turning, taper turning, step Turning, radius making and parting-off.
4 th	4	To prepare a job on a lathe involving facing, outside turning, taper turning, step Turning, radius making and parting-off.
5 th	5	To study different types of fitting tools and marking tools used in fitting practice.
6 th	6	To prepare a job in fitting shop
7 th	7	To prepare lap joint using electric arc welding
8 th	8	To prepare butt joint using electric arc welding
9 th	9	To perform pipe welding.

10 th	10	To study various types of carpentry tools
11 th	11	To prepare cross lap joint of a rectangular piece of wood
12 th	12	To prepare half lap T joint of a rectangular piece of wood
13 th	13	To study various types of foundry tools
14 th	14	To prepare mold and core assembly, to put metal in the mold and fettle the casting.
15 th	15	Viva- voce of workshop