Lesson Plan

Name offaculty: - Suman Devi
Discipline:- Applied Science
Semester: -2nd Sem
Subject: -English Language-II
Lesson PlanDuration: - 15 weeks (from Jan-2018 to Apr-2018)
Work Load:- Lectures-3, Practicals-2

	THEORY		PRACTICAL	
WEEK	LECTURE	TOPIC	PRACTICAL	TOPIC
1st	1st	Grammar	1st	Debate
	2nd	Prepositions(Define)		
	3rd	Prepositions(Types)	2nd	Telephonic Conversation
2nd	1st	Prepositions(Uses)	1st	Offering- Responding to offers
	2nd	Prepositions(Uses		
	3rd	Revision of Prepositions	2nd	Requesting – Responding to requests
3rd	1st	Framing Questions	1st	Congratulating File checking
	2nd	Question start with Aus. Verb		
	3rd	Question start with Aus. verb Modals	2nd	Exploring sympathy and condolences
4th	1st	Question start with Que. Words	1st	Asking Questions- Polite Responses
	2nd	Question start with Que. Words		
	3rd	Revision	2nd	Apologizing, forgiving
5th	1st	1st Sessional		
	2nd			
	3rd			
6th	1st	Conjunction(Define)	1st	Complaining
	2nd	Type of conjunction		

	3rd	Explain of Types	2nd	Warning
	1st	Use of conjunction		
	2nd	Revision of conjunction	1st	Asking and giving information
7th	3rd	Tenses	2nd	File checking
	1st	Tenses(Define, Type)		
	2nd	Simple present Tenses	1st	Apologizing, forgiving
8th	3rd	Present Continuous Tenses Present Perfect, continuous Tenses	2nd	Complaining
	1st	Past Tenses(Uses)		
	2nd	Future Tenses(Uses)	1st	Warning
9th	3rd	Revision of Tenses	2nd	Asking and giving information
	1st			
	2nd			
10th	3rd	2nd Sessional		
	1st	Unseen Passage		
	2nd	Revision of it	1st	Getting and giving permission
11th	3rd	Business letters(Floating Quotations)	2nd	File checking
	1st	Placing Orders, Complaint Letters.		
	2nd	Official Letters- Letters to Government	1st	Asking and giving opinions
12th	3rd	Official Letters- Letters to other Offices	2nd	Assignment
	1st	Memos, Circular		
	2nd	Office Orders	1st	Assignment and current topic
13th	3rd	Agenda	2nd	Assignment
	1st	Minutes of Meeting		
	2nd	Revision of Letter,Memos	1st	Assignment
14th	3rd	Revision of circular,Agenda,Minutes of meeting	2nd	File checking
	1st			
	2nd			
15th	3rd	Sessional 3rd		

Lesson Plan

Name of the Faculty : Mr.Amit Jain
Discipline : Applied Science
Semester : Second
Subject : Applied Mathematics-II
Paper Code : 170022
Lesson Plan Duration : 15weeks (from January, 2018 to April, 2018)

Week	Theory	
	Lecture	Topic (including assignment/ test)
1st	1st	Definition and concept of function
	2nd	Exercise of functions
	3rd	Concept of limits (Lecture-1)
	4th	Concept of limits (Lecture-2)
	5th	Concept of limits (Lecture-3)
2nd	1st	Problems are taken from the students.
	2nd	Differentiation of , sin x by first principle.
	3rd	Differentiation of cos x, tan x by first principle.
	4th	Differentiation of by first principle.
	5th	Differentiation of sum and difference of functions (Lecture-1)
3rd	1st	Differentiation of sum and difference of functions (Lecture-2)
	2nd	Differentiation of product of functions (Lecture-1)
	3rd	Differentiation of product of functions (Lecture-2)
	4th	Differentiation of quotient of functions (Lecture-1)
	5th	Differentiation of quotient of functions (Lecture-2)

	1st	Differentiation of quotient of functions (Lecture-3)
	2nd	Differentiation of trigonometric functions (Lecture-1)
	3rd	Differentiation of trigonometric functions (Lecture-2)
	4th	Differentiation of trigonometric functions (Lecture-3)
4th	5th	Problems are taken from the students.
	1st	Differentiation of inverse trigonometric functions (Lecture-1)
	2nd	Differentiation of inverse trigonometric functions (Lecture-2)
	3rd	Differentiation of inverse trigonometric functions (Lecture-3)
	4th	Logarithmic differentiation (Lecture-1)
5th	5th	Logarithmic differentiation (Lecture-2)
	1st	Formulas revision of Differential Calculus with examples
	2nd	Successive Differentiation upto 2nd order (Lecture-1)
	3rd	Successive Differentiation upto 2nd order (Lecture-2)
	4th	Successive Differentiation upto 2nd order (Lecture-3)
6th	5th	Problems are taken from the students.
	1st	Application of differential calculus in Rate Measures (Lecture-1)
	2nd	Application of differential calculus in Rate Measures (Lecture-2)
	3rd	Application of differential calculus in Maxima and Minima (Lecture-1)
	4th	Application of differential calculus in Maxima and Minima (Lecture-2)
7th	5th	Problems are taken from the students.
	1st	Problem discussion of Unit 1 (Differential Calculus)
	2nd	• Copy Checking • Assignment Checking
	3rd	Test-1
	4th	Integration as inverse operation of differentiation with simple examples
8th	5th	• Indefinite Integral (Lecture-1) • Assignment work on Integral Calculus
	1st	Indefinite Integral (Lecture-2)
	2nd	Indefinite Integral (Lecture-3)
	3rd	Indefinite Integral (Lecture-4)
	4th	Indefinite Integral (Lecture-5)
9th	5th	Indefinite Integral (Lecture-6)
	1st	Indefinite Integral (Lecture-7)
	2nd	Problems are taken from the students.
	3rd	Definite Integrals (Lecture-1)
	4th	Definite Integrals (Lecture-2)
10th	5th	Definite Integrals (Lecture-3)
	1st	Definite Integrals (Lecture-4)
	2nd	Evaluation of
11th	3rd	Evaluation of

	4th	Formulas revision of Integral Calculus with examples
	5th	Applications of integration for evaluation of area under a curve and axes (Lecture-1)
	1st	Applications of integration for evaluation of area under a curve and axes (Lecture-2)
	2nd	Numerical integration by Trapezoidal Rule using pre-existing mathematical models (Lecture-1)
	3rd	Numerical integration by Trapezoidal Rule using pre-existing mathematical models (Lecture-2)
	4th	Numerical integration by Simpson's 1/3rd Rule using pre-existing mathematical models (Lecture-1)
12th	5th	Numerical integration by Simpson's 1/3rd Rule using pre-existing mathematical models (Lecture-2)
	1st	Problem discussion of Unit 2 (Integral Calculus)
	2nd	• Copy Checking • Assignment Checking
	3rd	Test-2
	4th	• Definition, order and degree of an ordinary differential equation (Lecture-1) • Assignment work on Differential Equations and Statistics
13th	5th	Definition, order and degree of an ordinary differential equation (Lecture-2)
	1st	Linearity of an ordinary differential equation
	2nd	Measures of Central Tendency: Mean
	3rd	Measures of Central Tendency: Median
	4th	Measures of Central Tendency: Mode
14th	5th	Measures of Dispersion: Mean deviation
	1st	Measures of Dispersion: Standard Deviation (Lecture-1)
	2nd	Co-efficient of rank correlation
	3rd	Problem discussion of Unit 3 (Differential Equations and Statistics)
	4th	• Copy Checking • Assignment Checking
15th	5th	Test-3

Lesson Plan

Name of the Faculty : Gagandeep
Discipline : Applied Science

Semester : 2nd sem
Subject : APPLIED PHYSICS – II
Paper Code :
Lesson Plan Duration : 15weeks (from January, 2018 to April, 2018)

Week	Theory	
	Lecture	**Topic (including assignment/ test)**
1st	1st	Wave motion and its applications :-
	2nd	Wave motion, transverse and longitudinal wave motion with examples,Terms used in wave motion like displacement
	3rd	
	4th	Amplitude, time period,frequency,wavelength,wave velocity
	5th	Relationship among wave velocity, frequency and wave length
2nd	1st	Simple Harmonic Motion (SHM): definition,examples
	2nd	Cantilever (definition ,formula of time period(without derivation)
	3rd	
	4th	Free, forced and resonant vibrations with examples
	5th	Acoustics of buildings – reverberation, reverberation time, echo, noise
3rd	1st	Coefficient of absorption of sound, methods to control reverberation time
	2nd	Ultrasonics – Introduction and their engineering applications(cold welding,drilling,SONAR)
	3rd	
	4th	Ultrasonics – Introduction and their engineering applications(cold welding,drilling,SONAR)
	5th	Optics :- Reflection and refraction with laws
4th	1st	Refractive index
	2nd	Lens formula(no derivation),power of lens(related numerical problems)
	3rd	
	4th	Total internal reflection and its applications, Critical angle and conditions for total internal reflection
	5th	Microscope,Telescope(definition)
5th	1st	Uses of microscope and telescope
	2nd	Electrostatics :- Coulombs law, unit charge
	3rd	
	4th	Coulombs law, unit charge
	5th	Electric field, Electric lines of force(definition and properties)
6th	1st	Electric field, Electric lines of force(definition and properties)
	2nd	Electric flux,Electric Intensity and Electric potential(definition,formula)
	3rd	
	4th	Electric flux,Electric Intensity and

		Electric potential(definition,formula)
	5th	Electric field intensity due to a point charge
	1st	Electric field intensity due to a point charge
	2nd	Gauss law(Statement and derivation)
	3rd	
	4th	Capacitor and Capacitance (with formula and units)
7th	5th	Series and parallel combination of capacitors (simple numerical problems)
	1st	Series and parallel combination of capacitors (simple numerical problems)
	2nd	Current Electricity :-
	3rd	
	4th	Electric Current and its Unit
8th	5th	Direct and alternating current
	1st	Resistance and Specific Resistance(definition and units) Conductance
	2nd	Series and Parallel combination of Resistances
	3rd	
	4th	Series and Parallel combination of Resistances
9th	5th	Ohm's law (statement and formula)
	1st	Superconductivity(definition only)
	2nd	Heating effect of current
	3rd	
	4th	Electric power
10th	5th	Electric energy and its units
	1st	Kirchhoff's laws(statement and formula)
	2nd	Electromagnetism:-
	3rd	
	4th	Introduction to magnetism
11th	5th	Types of magnetic materials
	1st	Dia, para and ferromagnetic materials with examples
	2nd	Dia, para and ferromagnetic materials with examples
	3rd	
	4th	Magnetic field,magnetic intensity
12th	5th	Magnetic lines of force
	1st	Electromagnetic induction (definition)
	2nd	Semiconductor physics :-
	3rd	
	4th	Energy bands
13th	5th	Types of materials (insulator, semi conductor, conductor)
	1st	Intrinsic and extrinsic semiconductors
	2nd	p-n junction diode and its V-I characteristics
	3rd	
	4th	Diode as rectifier – half wave and full wave rectifier (centre tap only)
14th	5th	Semiconductor transistor; pnp and npn (Introduction only)
15th	1st	Modern Physics :-

	2nd	Lasers: full form, characteristics, engineering and medical applications of lasers
	3rd	
	4th	Fibre optics: Introduction to optical fibers(definition ,parts),applications of optical fibers in different fields
	5th	Introduction to nanotechnology(definition of nanomaterials with examples) and its applications

Lesson Plan

Name of the Faculty : **Gagandeep**
Discipline : **Applied Science**
Semester : **2nd sem**
Subject : **APPLIED CHEMISTRY – II**
Paper Code :
Lesson Plan Duration : **15weeks (from January, 2018 to April, 2018)**

Week	Theory	
	Lecture	**Topic (including assignment/ test)**
	1st	
	2nd	Metallurgy :-
	3rd	General metallurgical terms and operations with reference to iron
	4th	Copper and aluminium
1st	5th	
	1st	
	2nd	Manufacture of steel- Open hearth process
	3rd	Alloys- definition and purpose of alloying
	4th	Type of alloys – ferrous and nonferrous
2nd	5th	
	1st	
	2nd	Alloys, properties and applications of ferrous alloys- invar
	3rd	Nichrome, stainless steel
3rd	4th	Alnico and non-ferrous alloys – brass

	5th	
	1st	
	2nd	Bronze, duralumin, magnalium and solder
	3rd	Corrosion and its Control :- Definition of corrosion, its types and factors affecting corrosion rate.
	4th	Theories of:- Dry (chemical) corrosion- Pilling Bedworth rule, Wet corrosion in acidic atmosphere by hydrogen evolution mechanism
4th	5th	
	1st	
	2nd	Definition of passivity in metals as per galvanic series
	3rd	Corrosion control:- Metal coatings – Cathodic protection(Sacrificial protection and impressed current voltage)
	4th	Cementation on Base Metal Steel – Application of Metal Zn (Sheradizing),Cr (Chromozing) and Al (Calorizing)
5th	5th	
	1st	
	2nd	Inorganic coatings – Anodizing and phosphating
	3rd	Organic coatings - use of paints varnishes and enamels
	4th	Internal corrosion preventive measures- alloying (with reference to passivating, neutralizing and inhibition) and heat treatment (quenching, annealing)
6th	5th	
	1st	
	2nd	Fuels :- Definition of fuel, classification of fuels
	3rd	Characteristics of good fuel, relative merits of gaseous, liquid and solid fuels
	4th	Calorific value-higher calorific value, lower calorific value,
7th	5th	
	1st	
	2nd	Determination of calorific value of solid or liquid fuel using Bomb calorimeter and numerical examples.
	3rd	Coal - types of coal and proximate analysis of coal
	4th	Fuel rating – Octane number and Cetane number
8th	5th	
	1st	
	2nd	Fuel-structural influence on Octane and Cetane numbers
	3rd	Gaseous fuels – chemical composition
	4th	Calorific value and applications of natural gas (CNG), LPG, producer gas, water gas and biogas
9th	5th	
	1st	
	2nd	Elementary ideal on – hydrogen as future fuels, nuclear fuels
	3rd	Lubricants :-Definition of Lubricant and lubrication, type of lubrications –hydrodynamic
	4th	Boundary lubrication with illustrative diagrams
10th	5th	

	1st	
	2nd	Classification of lubricants –liquid lubricants, solid lubricants
	3rd	Semi-solid lubricants and synthetic lubricants with examples
	4th	Properties of lubricant:- Physical properties –viscosity and viscosity index, cloud point and pour point, flash point and fire point, oiliness
11th	5th	
	1st	
	2nd	Chemical properties- total acid value or number (TAV or TAN), carbon residue, emulsification factor and iodine value
	3rd	Designation of lubricating oils according to Society of Automotive Engineers (SAE)
	4th	Cutting fluids – applications of cutting fluids, types and the factors that govern the selection of cutting fluids
12th	5th	
	1st	
	2nd	Engineering Materials and Refractories :- Definition and types with suitable examples and applications of- Ceramics, Refractory and Composite materials
	3rd	Glass-chemical composition and application of Soda, Borosilicate and lead glasses only
	4th	Paint, varnish and enamels- definition, constituents
13th	5th	
	1st	
	2nd	Advantages of these organic coatings
	3rd	Polymers and Plastics :-Definition of polymer, monomer and degree of polymerization
	4th	Brief introduction to addition and condensation polymers with suitable examples (PE, PS, PVC, Teflon, Nylon -66 and Bakelite)
14th	5th	
	1st	
	2nd	Definition of plastics, thermo plastics and thermo setting plastics with suitable examples
	3rd	Distinctions between thermo plastics and thermo settings
	4th	Applications of polymers in industry and daily life
15th	5th	

Lesson Plan

Name of the Faculty : - Mrs. Suman Devi
Discipline : - Applied Science
Semester :- 2nd
Subject :- ENVIRONMENTAL STUDIES
Paper Code :
Lesson Plan Duration :- 15 weeks (from January, 2018 to April,2018)

Week	Theory	
	Lecture	**Topic (including assignment/ test)**
	1st	Ecology, Eco system- concept
	2nd	Structure and Importance of ecosystem
	3rd	Carbon, Nitrogen cycle
	4th	Sulphur cycle, Sustainable development
1st	5th	Conservation of land
	1st	Preservation of species, prevention of advancement of deserts
	2nd	lowering of watertable, Rain water harvesting
	3rd	Acid Rain, maintenance of ground water
	4th	Seminar 1
2nd	5th	Water supply engineering, Deforestation – its effects and control measures
	1st	Assignment 1
	2nd	Pollution: Sources of pollution - natural and man made
	3rd	Classification of pollutants
	4th	Causes, effects and control measures of pollution
3rd	5th	Causes, effects and control measures of pollution
	1st	Prevention of Pollution(lecture 1)
	2nd	Prevention of Pollution (lecture 2)
	3rd	Photocatalytic degradation of pollutants
	4th	Waste Minimization Techniques
4th	5th	Class test 1
	1st	Concept of Zero Discharge
	2nd	Solid waste management
	3rd	Classification of refuse material
	4th	Effects and control measures
5th	5th	Introduction to E-waste Management
	1st	Environmental Legislation - Water (prevention and control of pollution) Act 1974
	2nd	Prevention and Control of Pollution Act 1981
	3rd	Environmental Protection Act 1986
	4th	Role and Function of State Pollution Control Board
6th	5th	Assignment 2
	1st	Environmental Impact Assessment (EIA)
	2nd	Seminar 2
7th	3rd	Introduction to Energy Conservation Act 2001 and Energy Conservation (Amendment) Act 2010

	4th	Energy Conservation
	5th	Energy Management
	1st	Solar Energy
	2nd	Wind Energy
	3rd	Bio Energy
	4th	Hydro Energy
8th	5th	Global Warming, Green House Effect
	1st	Energy Conservation, Energy efficiency & its need
	2nd	Seminar 3
	3rd	Recycling of Material
	4th	Concept of Green Buildings
9th	5th	Assignment 3
	1st	Class test 3
	2nd	Depletion of Ozone Layer
	3rd	Revision of syllabus
	4th	Physical, chemical and biological treatment of pollutants
10th	5th	Chemical degradation of waste
	1st	Solar energy
	2nd	Wind energy
	3rd	Revision of 1st unit
	4th	Revision of 1st unit
11th	5th	Oral test
	1st	Revision of 2nd unit
	2nd	Revision of 2nd unit
	3rd	Oral test
	4th	Revision of 3rd unit
12th	5th	Revision of 3rd unit
	1st	Oral test
	2nd	Revision of 4th unit
	3rd	Revision of 4th unit
	4th	Oral test
13th	5th	Revision of 5th unit
	1st	Revision of 5th unit
	2nd	Oral test
	3rd	Revision of 6th unit
	4th	Revision of 6th unit
14th	5th	Oral test
	1st	Revision of 7th unit
	2nd	Revision of 7th unit
	3rd	Oral test
	4th	
15th	5th	

Lesson Plan

Name of faculty:- Mr.RamBhagat (Practical)
Discipline: Civil Engg.
Semester: II
Subject: EngineeringDrawing -II
Lesson Plan Duration: 15weeks (from Jan-2018 to Apr-2018)
Work Load: Practicals-8

WEEK	PRACTICAL	
	PRACTICAL DAY	TOPIC
1	1	Principle and utility of detail and assembly drawings
	2	Wooden joints i.e. corner mortice and tenon joint, Tee halving joint, Mitre faced corner joint, Tee bridle joint,
2	1	Crossed wooden joint, Cogged joint, Dovetail joint, Through Mortice and Tenon joint, furniture drawing - freehand and with the help of drawing instruments
	2	Thread Terms and Nomenclature
	1	Types of threads-External and Internal threads, Right and Left

3		hand threads (Actual and Conventional representation), single and multiple start threads
	2	Different Forms of screw threads-V threads (B.S.W threads, B.A thread, American National and Metric thread),
4	1	Square threads (square, Acme, Buttress and Knuckle thread)
	2	Different views of hexagonal and square nuts and hexagonal headed bolt
5	1	Sessional 1st
	2	
6	1	Assembly of Hexagonal headed bolt and Hexagonal nut with washer, Assembly of square headed bolt with hexagonal and with washer.
	2	Different types of locking devices-Lock nut, castle nut, split pin nut, locking plate, slotted nut and spring washer
7	1	Foundations bolts-Rag bolt, Lewis bolt, curved bolt and eye bolt. Drawing of various types of machine screw, set screw, studs and washers
	2	Various types of keys and cotters and their practical application and preparation of drawing of various keys and cotters showing keys and cotters in position
8	1	Sheet checking .
	2	Various types of joints (3 sheets) - Spigot and socket joint - Gib and cotter joint - Knuckle joint

9	1	Types of general purpose-rivets heads (4 Sheets)
	2	Caulking and fullering of riveted joints and revision for sessional tests.
10	1	Sessional 2nd
	2	
11	1	Types of riveted joints (i) Lap joint-Single riveted, double riveted (chain and zig-zag type) (ii) Single riveted, Single cover plate butt joint (chain type)
	2	(iii) Single riveted, double cover plate butt joint (chain type) (iv) Double riveted, double cover plate butt joint(chain and zig-zag type
12	1	Couplings (2 sheets) , Flange coupling (Protected and non-protected), muff coupling and half-lap muff coupling
	2	Symbols and Conventions (2 sheets) , Civil engineering sanitary fitting symbols
13	1	Electrical fitting symbols for domestic interior installations
	2	AUTO CAD (for practical and viva-voce only) Concept of AutoCAD, Tool bars in AutoCAD, coordinate system, snap, grid, and ortho mode , Drawing commands – point, line, arc, circle, ellipse
14	1	Editing commands – scale, erase, copy, stretch, lengthen and explode
	2	Sheet checking and doubt clearing.

15	1	Sessional 3rd
	2	