

## LESSON PLAN

**Name of Faculty:** Anju Rani  
**Discipline:** Mechanical Engg. , Auotmobile Engg., I&C  
**Semester:** Second  
**Subject:** Applied Mathematics  
**Lesson Plan Duration:** 15 weeks(from 9th Jan,2018 to 30th April,2018)  
**Work Load:** Theory 5 lecture per branch

Week	Lecture day	Theory
		(including Assignments and Tests)
1	1	Definition of function, Types of functions and how to find value of a function at given value of x.
	2	Concept of limit, Defining Left Handed Limit and Right Handed limit, The algebra of limits.
	3	Evaluation of limits and Indeterminant forms
	4	Evaluation of limits using standard forms –Trignometric limits
	5	Evaluation of limits using standard forms - Logarithmic & Exponential limits
2	6	Problems related to function and limits
	7	Test on function and their limits
	8	Concept of differentiation, symbol used for differentiation, derivative as rate measure
	9	Differentiation by definition of $x^n$ , $\sin x$ , $\cos x$ , $\tan x$ , $e^x$ , $\log_a x$ using first principle
	10	Formulas of derivatives of algebraic, trignometric, logarithmic, exponential and inverse trignometric functions and questions on above formulas
3	11	Fundamental rules for differentiation i.e., differentiation of constant function, differentiation of sum of functions, differentiation using product rule and differentiation using quotient rule.
	12	Questions using formulas for differentiation and using fundamental rule of differentiation
	13	Questions using formulas for differentiation and using fundamental rule of differentiation
	14	Questions using formulas for differentiation and using fundamental rule of differentiation
	15	Defining derivatives of higher order and questions related to Higher order derivatives
4	16	Defining derivatives of higher order and questions related to Higher order derivatives
	17	Problems on differentiation
	18	Problems on differentiation
	19	Test on differentiation
	20	Application of differential calculus - rate measure
5	21	Application of differential calculus - rate measure
	22	Application of differential calculus - Maxima & Minima
	23	Application of differential calculus - Maxima & Minima
	24	Problems related to application of derivatives
	25	Revision
	26	Revision
	27	Test on Differential Calculus - complete
	28	Distribution of test and review of test

6	29	Definition of Indefinite Integral, symbol used for integration, explaining integration as inverse operation of differentiation with simple examples
	30	Standard elementary integrals and questions related to them
7	31	Standard elementary integrals and questions related to them
	32	Standard elementary integrals and questions related to them
	33	Problems of indefinite integrals
	34	Test of indefinite integrals
	35	Defining definite integral using examples

8	36	Questions on definite integral
	37	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	38	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	39	Evaluation of definite Integral using properties
	40	Evaluation of definite Integral using properties
9	41	Problems related to definite integrals
	42	Test on definite integrals
	43	Application of integration for evaluation of area under the curve and axis
	44	Application of integration for evaluation of area under the curve and axis
	45	Numerical Integration by Trapezoidal rule
10	46	Numerical Integration by Trapezoidal rule
	47	Numerical Integration by Simpon's 1/3 <sup>rd</sup> rule
	48	Numerical Integration by Simpon's 1/3 <sup>rd</sup> rule
	49	Problem related to application of integration
	50	Revision
11	51	Revision
	52	Test on Integration complete
	53	Distribution of test and review of test
	54	Definition of differential equations and ordinary differential equations using examples
	55	Order, degree and linearty of ordinary differential equations
12	56	Order, degree and linearty of ordinary differential equations
	57	Problems on differential equations
	58	Test on differential equations
	59	Statistics - Defining Statistics, measures of Central Tendency: Mean - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	60	Statistics - Defining Statistics, measures of Central Tendency: Mean - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
13	61	Measures of Central Tendency: Median - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	62	Measures of Central Tendency: Median - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	63	Measures of Central Tendency: Mode - (i) for for individual series (ii) for continuous or grouped frequency distribution
	64	Measures of Central Tendency: Mode - (i) for for individual series (ii) for continuous or grouped frequency distribution
	65	Measures of Dispersion: Mean deviation using mean and median for individual series
	66	Mean deviation using mean and median for discrete frequency distribution
	67	Mean deviation using mean and median for continuous frequency distribution

14	68	Measures of Dispersion: Standard deviation using mean and median for individual series
	69	Standard deviation for discrete frequency distribution
	70	Standard deviation for continuous frequency distribution
15	71	Co-efficient of rank correlation
	72	Problem on statistics
	73	Revision
	74	Test on statistics & Differential equation
	75	Distribution of test and review of test

Name of the Faculty: Birender Singh

Discipline: Chemical, Electrical, Computer Engg

Semester Second

Subject: Physics

Work load : Theory 04 and Practical 02

Week	Lecture Day	Theory (Including Assignments and Tests)	Practical Day	Practicals Topic
1	1	Wave motion, transverse wave, longitudinal wave, examples	1	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-1
	2	displacement, amplitude, time period, frequency, wavelength, wave velocity		
	3	Relationship between wave velocity, wavelength and frequency, simple harmonic motion	2	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-2
	4	simple harmonic motion with examples		
2	5	Assignment	3	To find the time period of a simple pendulum (GP-1)
	6	free, forced and resonant vibrations with examples		
	7	Acoustics of buildings- reverberation, reverberation time, echo, noise, Coefficient of absorption of sound	4	To find the time period of a simple pendulum (GP-2)
	8	Cantilever, definition and time period		
3	9	Assignment	5	To determine and verify the time period of a cantilever (GP-1)
	10	Ultrasonics- introduction and engineering applications( cold welding, drilling and SONAR		
	11	Reflection and refraction with laws, refractive index	6	To determine and verify the time period of a cantilever (GP-2)
	12	lens formula, power of lens, problems		
4	13	Total internal reflection and its conditions for occurrence	7	To verify Ohm's law by plotting a graph between voltage and current (GP-1)
	14	Microscope and telescope(definition		
	15	Uses of microscope and telescope	8	To verify Ohm's law by plotting a graph between voltage and current (GP-2)
	16	Assignment		
5	17	Coulomb's law, unit charge	9	To verify Laws of resistances in series combination (GP-1)
	18	Electric field, Electric lines of force(definition and properties)		
	19	Electric flux, Electric intensity and electric potential	10	To verify Laws of resistances in series combination (GP-2)
	20	Electric field intensity due a point charge, Gauss law including derivation		
6	21	Assignment	11	To verify Laws of resistances in parallel combination (GP-1)
	22	Capacitor and capacitance, units and formula		
	23	Series and parallel combination of capacitors	12	To verify Laws of resistances in parallel combination (GP-2)
	24	numerical problems		

7	25	Electric current and its unit, direct and alternating current	13	To find resistance of galvanometer by half deflection method (GP-1)	
	26	Resistance and specific resistance(definition and units), conductance			
	27	Series and parallel combination of resistances	14		
	28	Assignment			
8	29	Ohm's law(statement and formula), superconductivity(definition only)	15	To verify laws of reflection by light using mirror (GP-1)	
	30	Heating current of current, electric power			
	31	Electric energy and its unit, Kirchoff's law	16	To verify laws of reflection by light using mirror (GP-2)	
	32	Assignment			
9	33	Introduction to magnetism, types of magnetic materials	17		To identify different components like resistance, capacitor, diode (GP-1)
	34	dia, para, and ferromagnetic materials with examples			
	35	Magnetic field, magnetic intensity,magnetic lines of force	18	To identify different components like resistance, capacitor, diode (GP-2)	
	36	magnetic flux and its units			
10	37	Assignment	19		To study colour coding scheme of resistance (GP-1)
	38	Electromagnetic induction(definition)			
	39	Energy bands	20	To study colour coding scheme of resistance (GP-2)	
	40	Insulators, semiconductors and conductors			
11	41	Intrinsic and extrinsic semiconductors	21		Checking/Discussion of project report (Roll no. 1 - 10)
	42	p-n junction diode, VI characteristics			
	43	Diode as rectifier- half wave	22	Checking/Discussion of project report (Roll no. 31 - 40)	
	44	Full wave rectifier(centre tap only)			
12	45	pnp and npn transisors	23		Checking/Discussion of project report (Roll no. 11 - 20)
	46	Assignment			
	47	Lasers, characteristics of laser light	24	Checking/Discussion of project report (Roll no. 41 - 50)	
	48	Engineering and medical applications of laser			
13	49	Fibre optics- definitions and parts	25		Checking/Discussion of project report (Roll no. 21 - 30)
	50	Applications of fibre optics in different fields			
	51	Introduction to nano technology	26	Checking/Discussion of project report (Roll no. 51 - 60)	
	52	Applications of nanotechnology in different fields			
14	53	Revision of first unit	27		Revision of Theory and practicals (GP-1)
	54	test of first unit			
	55	Revision of second unit	28	Revision of Theory and practicals (GP-2)	
	56	test of second unit			
15	57	Revision of 6th unit	29		Revision of Theory and practicals (GP-1)
	58	Test of 6th unit			
	59	Test of syllabus	30	Revision of Theory and practicals (GP-2)	
	60	Test of syllabus			

Name of the faculty : Jyoti Dalal  
 Discipline: Automobile -1, ECE-1 & Mech.-1 Engg  
 Semester Second  
 Subject: Applied Physics  
 Work load : Theory 04 and Practical 02

Week	Lecture Day	Theory (Including Assignments and Tests)	Practical Day	Practicals Topic
1	1	Wave motion, transverse wave, longitudinal wave, examples	1	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-1
	2	displacement, amplitude, time period, frequency, wavelength, wave velocity		
	3	Relationship between wave velocity, wavelength and frequency, simple harmonic motion	2	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-2
	4	simple harmonic motion with examples		
2	5	Assignment	3	To find the time period of a simple pendulum (GP-1)
	6	free, forced and resonant vibrations with examples		
	7	Acoustics of buildings- reverberation, reverberation time, echo, noise, Coefficient of absorption of sound	4	To find the time period of a simple pendulum (GP-2)
	8	Cantilever, definition and time period		
3	9	Assignment	5	To determine and verify the time period of a cantilever (GP-1)
	10	Ultrasonics- introduction and engineering applications( cold welding, drilling and SONAR		
	11	Reflection and refraction with laws, refractive index	6	To determine and verify the time period of a cantilever (GP-2)
	12	lens formula, power of lens, problems		
4	13	Total internal reflection and its conditions for occurrence	7	To verify Ohm's law by plotting a graph between voltage and current (GP-1)
	14	Microscope and telescope(definition		
	15	Uses of microscope and telescope	8	To verify Ohm's law by plotting a graph between voltage and current (GP-2)
	16	Assignment		
5	17	Coulomb's law, unit charge	9	To verify Laws of resistances in series combination (GP-1)
	18	Electric field, Electric lines of force(definition and properties)		
	19	Electric flux, Electric intensity and electric potential	10	To verify Laws of resistances in series combination (GP-2)
	20	Electric field intensity due a point charge, Gauss law including derivation		
6	21	Assignment	11	To verify Laws of resistances in parallel combination (GP-1)
	22	Capacitor and capacitance, units and formula		
	23	Series and parallel combination of capacitors	12	To verify Laws of resistances in parallel combination (GP-2)
	24	numerical problems		
7	25	Electric current and its unit, direct and alternating current	13	To find resistance of galvanometer by half deflection method (GP-1)
	26	Resistance and specific resistance(definition and units), conductance		
	27	Series and parallel combination of resistances	14	To find resistance of galvanometer by half deflection method (GP-2)
	28	Assignment		
8	29	Ohm's law(statement and formula), superconductivity(definition only)	15	To verify laws of reflection by light using mirror (GP-1)
	30	Heating current of current, electric power		
	31	Electric energy and its unit, Kirchoff's law	16	To verify laws of reflection by light using mirror (GP-2)
	32	Assignment		
9	33	Introduction to magnetism, types of magnetic materials	17	To identify different components like resistance, capacitor, diode (GP-1)
	34	dia, para, and ferromagnetic materials with examples		
	35	Magnetic field, magnetic intensity,magnetic lines of force	18	To identify different components like resistance, capacitor, diode (GP-2)

	36	magnetic flux and its units		
10	37	Assignment	19	To study colour coding scheme of resistance (GP-1)
	38	Electromagnetic induction(definition)		
	39	Energy bands	20	To study colour coding scheme of resistance (GP-2)
	40	Insulators, semiconductors and conductors		
11	41	Intrinsic and extrinsic semiconductors	21	Checking/Discussion of project report (Roll no. 1 - 10)
	42	p-n junction diode, VI characteristics		
	43	Diode as rectifier- half wave	22	Checking/Discussion of project report (Roll no. 31 - 40)
	44	Full wave rectifier(centre tap only)		
12	45	pnp and npn transistors	23	Checking/Discussion of project report (Roll no. 11 - 20)
	46	Assignment		
	47	Lasers, characteristics of laser light	24	Checking/Discussion of project report (Roll no. 41 - 50)
	48	Engineering and medical applications of laser		
13	49	Fibre optics- definitions and parts	25	Checking/Discussion of project report (Roll no. 21 - 30)
	50	Applications of fibre optics in different fields		
	51	Introduction to nano technology	26	Checking/Discussion of project report (Roll no. 51 - 60)
	52	Applications of nanotechnology in different fields		
14	53	Revision of first unit	27	Revision of Theory and practicals (GP-1)
	54	test of first unit		
	55	Revision of second unit	28	Revision of Theory and practicals (GP-2)
	56	test of second unit		
15	57	Revision of 6th unit	29	Revision of Theory and practicals (GP-1)
	58	Test of 6th unit		
	59	Test of syllabus	30	Revision of Theory and practicals (GP-2)
	60	Test of syllabus		

## LESSON PLAN

Name of Faculty: Kamlesh  
Discipline: Applied Science  
Semester: Second  
Subject: English Language  
Work Load: Theory 3, Practical 2 per branch

Week	Lecture day	Theory	Practical Day	Practicals
		(including Assignments and Tests)		Topic
1	1	Introduction of syllabus & Preposition	1	Debate GP-1
	2	Preposition - Simple, Compound and Phrase		
	3	Preposition - Exercise	2	Debate GP-2
2	4	Framing Questions and Types of questions	3	Telephonic conversation: general etiquette GP-1
	5	Framing Questions - Exercise		
	6	Test	4	Telephonic conversation: general etiquette GP-2
3	7	Conjunction - Classes of conjunction	5	Offering - Responding to offers GP-1
	8	Conjunction - Exercise		
	9	Tenses - Present Tense	6	Offering - Responding to offers GP-2
4	10	Present Tense - Exercise	7	Requesting - Responding to requestes GP-1
	11	Past Tense		
	12	Past-Tense - Exercise	8	Requesting - Responding to requestes GP-2
5	13	Future Tense	9	Congratulating GP-1
	14	Future Tense- Exercise		
	15	Test	10	Congratulating GP-2
6	16	Comprehension - Unseen passage	11	Exploring sympathy and condolences GP-1
	17	Comprehension - Exercise		
	18	Comprehension - Exercise	12	Exploring sympathy and condolences GP-2
7	19	Comprehension - Vocabulary Enhancement	13	Asking Questions - Polite Responses GP-1
	20	Comprehension - Vocabulary Enhancement		
	21	Test	14	Asking Questions - Polite Responses GP-2

8	22	Official Correspondence	15	Apologizing, forgiving GP-1
	23	Exercise in official correspondence		
	24	Official Correspondence - Exercise	16	Apologizing, forgiving GP-2
9	25	Memorandum Writing - Exercise	17	Complaining GP-1
	26	Memorandum - Exercise		
	27	Business Letter Exercise	18	Complaining GP-2
10	28	Business Letters	19	Warning GP-1
	29	Business Correspondence		
	30	Test	20	Warning GP-2
11	31	Agenda - Steps to create effective agenda	21	Asking and giving information GP-1
	32	Agenda writing practice		
	33	Minutes of the meeting	22	Asking and giving information GP-2
12	34	Minutes of the meeting	23	Getting and giving information GP-1
	35	Note making		
	36	Note making	24	Getting and giving information GP-2
13	37	Test	25	Asking and giving opinions GP-1
	38	Telephonic Messages		
	39	Telephonic Messages - Practice	26	Asking and giving opinions GP-2
14	40	Telephonic Messages - Practice	27	Revision Work GP-1
	41	Advertisement		
	42	Advertisement Writing	28	Revision Work GP-1
15	43	Advertisement Writing	29	Revision Work GP-1
	44	Revision Work		
	45	Test	30	Revision Work GP-1

## LESSON PLAN

**Name of Faculty:** Kiran  
**Discipline:** Mechanical Engg. , Auotmobile Engg., Computer Engg.  
**Semester:** Second  
**Subject:** Applied Mathematics  
**Lesson Plan Duration:** 15 weeks(from 9th Jan,2018 to 30th April,2018)  
**Work Load:** Theory 5 lecture per branch

Week	Lecture day	Theory
		(including Assignments and Tests)
1	1	Definition of function, Types of functions and how to find value of a function at given value of x.
	2	Concept of limit, Defining Left Handed Limit and Right Handed limit, The algebra of limits.
	3	Evaluation of limits and Indeterminant forms
	4	Evaluation of limits using standard forms –Trigonometric limits
	5	Evaluation of limits using standard forms - Logarithmic & Exponential limits
2	6	Problems related to function and limits
	7	Test on function and their limits
	8	Concept of differentiation, symbol used for differentiation, derivative as rate measure
	9	Differentiation by definition of $x^n$ , $\sin x$ , $\cos x$ , $\tan x$ , $e^x$ , $\log_a x$ using first principle
	10	Formulas of derivatives of algebraic, trigonometric, logarithmic, exponential and inverse trigonometric functions and questions on above formulas
3	11	Fundamental rules for differentiation i.e., differentiation of constant function, differentiation of sum of functions, differentiation using product rule and differentiation using quotient rule.
	12	Questions using formulas for differentiation and using fundamental rule of differentiation
	13	Questions using formulas for differentiation and using fundamental rule of differentiation
	14	Questions using formulas for differentiation and using fundamental rule of differentiation
	15	Defining derivatives of higher order and questions related to Higher order derivatives
4	16	Defining derivatives of higher order and questions related to Higher order derivatives
	17	Problems on differentiation
	18	Problems on differentiation
	19	Test on differentiation
	20	Application of differential calculus - rate measure
5	21	Application of differential calculus - rate measure
	22	Application of differential calculus - Maxima & Minima
	23	Application of differential calculus - Maxima & Minima
	24	Problems related to application of derivatives
	25	Revision
6	26	Revision
	27	Test on Differential Calculus - complete
	28	Distribution of test and review of test
	29	Definition of Indefinite Integral, symbol used for integration, explaining integration as inverse operation of differentiation with simple examples
	30	Standard elementary integrals and questions related to them
7	31	Standard elementary integrals and questions related to them
	32	Standard elementary integrals and questions related to them
	33	Problems of indefinite integrals
	34	Test of indefinite integrals
	35	Defining definite integral using examples

8	36	Questions on definite integral
	37	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ , $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	38	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ , $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	39	Evaluation of definite Integral using properties
	40	Evaluation of definite Integral using properties
9	41	Problems related to definite integrals
	42	Test on definite integrals
	43	Application of integration for evaluation of area under the curve and axis
	44	Application of integration for evaluation of area under the curve and axis
	45	Numerical Integration by Trapezoidal rule
10	46	Numerical Integration by Trapezoidal rule
	47	Numerical Integration by Simpson's 1/3 <sup>rd</sup> rule
	48	Numerical Integration by Simpson's 1/3 <sup>rd</sup> rule
	49	Problem related to application of integration
	50	Revision
11	51	Revision
	52	Test on Integration complete
	53	Distribution of test and review of test
	54	Definition of differential equations and ordinary differential equations using examples
	55	Order, degree and linearty of ordinary differential equations
12	56	Order, degree and linearty of ordinary differential equations
	57	Problems on differential equations
	58	Test on differential equations
	59	Statistics - Defining Statistics, measures of Central Tendency: Mean - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
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	64	Measures of Central Tendency: Mode - (i) for for individual series (ii) for continuous or grouped frequency distribution
	65	Measures of Dispersion: Mean deviation using mean and median for individual series
14	66	Mean deviation using mean and median for discrete frequency distribution
	67	Mean deviation using mean and median for continuous frequency distribution
	68	Measures of Dispersion: Standard deviation using mean and median for individual series
	69	Standard deviation for discrete frequency distribution
	70	Standard deviation for continuous frequency distribution
15	71	Co-efficient of rank correlation
	72	Problem on statistics
	73	Revision
	74	Test on statistics & Differential equation
	75	Distribution of test and review of test

## LESSON PLAN

<b>Name of Faculty:</b>	Miss Neeraj Rohilla	
<b>Discipline:</b>	ENVIRONMENTAL STUDIES	
<b>Semester:</b>	2nd	
<b>Subject:</b>	ENVIRONMENTAL STUDIES	
<b>Lesson plan Duration:</b>	15 WEEKS	
<b>Work Load (Lecture) per week:</b>	3 PERIODS	
	<b>LECTURE</b>	
<b>WEEK</b>	<b>LECTURE DAY</b>	<b>TOPIC</b>
<b>1<sup>ST</sup></b>	1	Basics of ecology, eco system- concept, structure and importance of ecosystem
	2	Basics of ecology, eco system- Carbon, Nitrogen, Sulphur cycle
	3	Basics of ecology, eco system- Sustainable development
<b>2<sup>ND</sup></b>	4	Conservation of land reforms, preservation of species
	5	Prevention of advancement of deserts and lowering of water table, rain water harvesting
	6	Acid Rain, maintenance of ground water
<b>3<sup>RD</sup></b>	7	Water supply engineering, Deforestation – its effects and control measures
	8	Sources of pollution - natural and manmade. Classification of pollutants
	9	Classification of pollutants, Causes & effects
<b>4<sup>TH</sup></b>	10	Control measures of air pollution, Control measures of water pollution
	11	Control measures of noise pollution, Control measures of soil pollution
	12	Control measures of radioactive and nuclear pollution
<b>5<sup>TH</sup></b>	13	Introduction to Cleaner Production Technologies
	14	Physical treatment of pollutants
	15	Chemical treatment of pollutants
<b>6<sup>TH</sup></b>	16	Biological treatment of pollutants
	17	Photocatalytic degradation of pollutants
	18	Waste Minimization Techniques – Chemical degradation of waste
<b>7<sup>TH</sup></b>	19	Waste Minimization Techniques – Concept of Zero Discharge

	20	<b>MINOR TEST</b>
	21	<b>Solid waste management</b>
<b>8<sup>TH</sup></b>	22	<b>Classification of refuse materials</b>
	23	<b>Refuse material sources and its effects</b>
	24	<b>Refuse material sources and its effects</b>
<b>9<sup>TH</sup></b>	25	<b>Control Measure of refuse materials</b>
	26	<b>Introduction to E-waste Management</b>
	27	<b>Water (prevention and control of pollution) Act 1974</b>
<b>10<sup>TH</sup></b>	28	<b>Air (Prevention and Control of Pollution) Act 1981, Environmental Protection Act 1986</b>
	29	<b>Role and Function of State Pollution Control Board</b>
	30	<b>Environmental Impact Assessment (EIA)</b>
<b>11<sup>TH</sup></b>	31	<b>Introduction to Energy Conservation Act 2001</b>
	32	<b>Energy Conservation (Amendment) Act 2010 importance</b>
	33	<b>Energy Conservation: Introduction to Energy Management</b>
<b>12<sup>TH</sup></b>	34	<b>Energy Conservation</b>
	35	<b>Energy efficiency &amp; its need</b>
	36	<b>Role of Non-conventional Energy Resources (Solar Energy) in environmental protection</b>
<b>13<sup>TH</sup></b>	37	<b>Role of Non-conventional Energy Resources (Wind Energy) in environmental protection</b>
	38	<b>Role of Non-conventional Energy Resources ( Bio Energy, Hydro Energy) in environmental protection</b>
	39	<b>Impact of Energy Usage on Environment – Global Warming</b>
<b>14<sup>TH</sup></b>	40	<b>Green House Effect, Depletion of Ozone Layer</b>
	41	<b>MINOR TEST</b>
	42	<b>Eco-friendly Material: Introduction Recycling of Material</b>
<b>15<sup>TH</sup></b>	43	<b>Eco-friendly Material: Recycling of Material</b>
	44	<b>Concept of Green Buildings</b>
	45	<b>MINOR TEST</b>

## LESSON PLAN

**Name of Faculty:** Poonam  
**Discipline:** Electrical Engg., Chemical Engg., Electronics & Comm. Engg.  
**Semester:** Second  
**Subject:** Applied Mathematics  
**Lesson Plan Duration:** 15 weeks(from 9th Jan,2018 to 30th April,2018)  
**Work Load:** Theory 5 lecture per branch

Week	Lecture day	Theory
		(including Assignments and Tests)
1	1	Definition of function, Types of functions and how to find value of a function at given value of x.
	2	Concept of limit, Defining Left Handed Limit and Right Handed limit, The algebra of limits.
	3	Evaluation of limits and Indeterminant forms
	4	Evaluation of limits using standard forms –Trigonometric limits
	5	Evaluation of limits using standard forms - Logarithmic & Exponential limits
2	6	Problems related to function and limits
	7	Test on function and their limits
	8	Concept of differentiation, symbol used for differentiation, derivative as rate measure
	9	Differentiation by definition of $x^n$ , $\sin x$ , $\cos x$ , $\tan x$ , $e^x$ , $\log_a x$ using first principle
	10	Formulas of derivatives of algebraic, trigonometric, logarithmic, exponential and inverse trigonometric functions and questions on above formulas
3	11	Fundamental rules for differentiation i.e., differentiation of constant function, differentiation of sum of functions, differentiation using product rule and differentiation using quotient rule.
	12	Questions using formulas for differentiation and using fundamental rule of differentiation
	13	Questions using formulas for differentiation and using fundamental rule of differentiation
	14	Questions using formulas for differentiation and using fundamental rule of differentiation
	15	Defining derivatives of higher order and questions related to Higher order derivatives
4	16	Defining derivatives of higher order and questions related to Higher order derivatives
	17	Problems on differentiation
	18	Problems on differentiation
	19	Test on differentiation
	20	Application of differential calculus - rate measure
5	21	Application of differential calculus - rate measure
	22	Application of differential calculus - Maxima & Minima
	23	Application of differential calculus - Maxima & Minima
	24	Problems related to application of derivatives
	25	Revision
6	26	Revision
	27	Test on Differential Calculus - complete
	28	Distribution of test and review of test
	29	Definition of Indefinite Integral, symbol used for integration, explaining integration as inverse operation of differentiation with simple examples
	30	Standard elementary integrals and questions related to them
7	31	Standard elementary integrals and questions related to them
	32	Standard elementary integrals and questions related to them
	33	Problems of indefinite integrals
	34	Test of indefinite integrals
	35	Defining definite integral using examples

8	36	Questions on definite integral
	37	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ , $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	38	Evaluation of definite integral using some standard results like $\int_0^{\pi/2} \sin^n x \, dx$ , $\int_0^{\pi/2} \cos^n x \, dx$ , $\int_0^{\pi/2} \cos^m x \sin^n x \, dx$ using formulas (m & n are the integers only)
	39	Evaluation of definite Integral using properties
	40	Evaluation of definite Integral using properties
9	41	Problems related to definite integrals
	42	Test on definite integrals
	43	Application of integration for evaluation of area under the curve and axis
	44	Application of integration for evaluation of area under the curve and axis
	45	Numerical Integration by Trapezoidal rule
10	46	Numerical Integration by Trapezoidal rule
	47	Numerical Integration by Simpson's 1/3 <sup>rd</sup> rule
	48	Numerical Integration by Simpson's 1/3 <sup>rd</sup> rule
	49	Problem related to application of integration
	50	Revision
11	50	Revision
	51	Test on Integration complete
	52	Distribution of test and review of test
	53	Definition of differential equations and ordinary differential equations using examples
	54	Order, degree and linearty of ordinary differential equations
12	55	Order, degree and linearty of ordinary differential equations
	56	Problems on differential equations
	57	Test on differential equations
	58	Statistics - Defining Statistics, measures of Central Tendency: Mean - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	59	Statistics - Defining Statistics, measures of Central Tendency: Mean - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
13	60	Measures of Central Tendency: Median - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	61	Measures of Central Tendency: Median - (i) for for individual series (ii) for discrete frequency distribution (iii) for continuous or grouped frequency distribution
	62	Measures of Central Tendency: Mode - (i) for for individual series (ii) for continuous or grouped frequency distribution
	63	Measures of Central Tendency: Mode - (i) for for individual series (ii) for continuous or grouped frequency distribution
	64	Measures of Dispersion: Mean deviation using mean and median for individual series
14	65	Mean deviation using mean and median for discrete frequency distribution
	66	Mean deviation using mean and median for continuous frequency distribution
	67	Measures of Dispersion: Standard deviation using mean and median for individual series
	68	Standard deviation for discrete frequency distribution
	69	Standard deviation for continuous frequency distribution
15	70	Co-efficient of rank correlation
	71	Problem on statistics
	72	Revision
	73	Test on statistics & Differential equation
	74	Distribution of test and review of test

## LESSON PLAN

Name of Faculty: Pushpa Rani  
Discipline: Applied Science  
Semester: Second  
Subject: English Language  
Work Load: Theory 3, Practical 2 per branch

Week	Lecture day	Theory	Practical Day	Practicals
		(including Assignments and Tests)		Topic
1	1	Introduction of syllabus & Preposition	1	Debate GP-1
	2	Preposition - Simple, Compound and Phrase		
	3	Preposition - Exercise	2	Debate GP-2
2	4	Framing Questions and Types of questions	3	Telephonic conversation: general etiquette GP-1
	5	Framing Questions - Exercise		
	6	Test	4	Telephonic conversation: general etiquette GP-2
3	7	Conjunction - Classes of conjunction	5	Offering - Responding to offers GP-1
	8	Conjunction - Exercise		
	9	Tenses - Present Tense	6	Offering - Responding to offers GP-2
4	10	Present Tense - Exercise	7	Requesting - Responding to requestes GP-1
	11	Past Tense		
	12	Past-Tense - Exercise	8	Requesting - Responding to requestes GP-2
5	13	Future Tense	9	Congratulating GP-1
	14	Future Tense- Exercise		
	15	Test	10	Congratulating GP-2
6	16	Comprehension - Unseen passage	11	Exploring sympathy and condolences GP-1
	17	Comprehension - Exercise		
	18	Comprehension - Exercise	12	Exploring sympathy and condolences GP-2
7	19	Comprehension - Vocabulary Enhancement	13	Asking Questions - Polite Responses GP-1
	20	Comprehension - Vocabulary Enhancement		
	21	Test	14	Asking Questions - Polite Responses GP-2

8	22	Official Correspondence	15	Apologizing, forgiving GP-1
	23	Exercise in official correspondence		
	24	Official Correspondence - Exercise	16	Apologizing, forgiving GP-2
9	25	Memorandum Writing - Exercise	17	Complaining GP-1
	26	Memorandum - Exercise		
	27	Business Letter Exercise	18	Complaining GP-2
10	28	Business Letters	19	Warning GP-1
	29	Business Correspondence		
	30	Test	20	Warning GP-2
11	31	Agenda - Steps to create effective agenda	21	Asking and giving information GP-1
	32	Agenda writing practice		
	33	Minutes of the meeting	22	Asking and giving information GP-2
12	34	Minutes of the meeting	23	Getting and giving information GP-1
	35	Note making		
	36	Note making	24	Getting and giving information GP-2
13	37	Test	25	Asking and giving opinions GP-1
	38	Telephonic Messages		
	39	Telephonic Messages - Practice	26	Asking and giving opinions GP-2
14	40	Telephonic Messages - Practice	27	Revision Work GP-1
	41	Advertisement		
	42	Advertisement Writing	28	Revision Work GP-1
15	43	Advertisement Writing	29	Revision Work GP-1
	44	Revision Work		
	45	Test	30	Revision Work GP-1

## LESSON PLAN

Name of Faculty : Dr. R.S. Chauhan, Sr. Lecturer Applied Sciences

Discipline : Mechanical Engg. , Chemical Engg.

Semester : 2nd

Subject : Chemistry (Theory & Practical)

Work Load : Lectures 03, Practicals 04

Week	Lecture day	Theory	Practical Day	Practicals
		(Including Assignments and Tests)		Topic
1	1	General Metallurgical terms-Metals, Non Metals, Mineral Ore, Gangue, Flux, Metallurgy.	1	General discussion about various instruments that will be used in practicals in 2nd semester and safety precautions in Gp-1 of students
	2	Metallurgical operations: Levigation, Electromagnetic separation, Froth Floatation Method, Calcination and Roasting	2	General discussion about various instruments that will be used in practicals in 2nd semester and safety precautions in Gp-2 of students
	3	Types of Metallurgy- Pyrometallurgy, Electrometallurgy, Hydrometallurgy, Refining of crude metal- Distillation Liquefaction, Electrorefining		
2	4	Basic introduction to Metallurgy of Iron, Copper, Aluminium	3	Gravimetric analysis and study of apparatus used therein (Group-1)
	5	Manufacture of steel: open hearth process.	4	Gravimetric analysis and study of apparatus used therein (Group-2)
	6	Alloys- Definition, types and purpose of alloy formation.		
3	7	Properties and application of ferrous alloys- Invar, Nichrome Stainless steel, alnico	5	Determination of %age purity of commercial sample of blue vitrol using N/20 Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (Group-1)
	8	Properties of non ferrous alloys- Brass, Bronze, duralumin, Magnalium and solder.	6	Determination of %age purity of commercial sample of blue vitrol using N/20 Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (Group-2)
	9	Test/ Assignment		
4	10	Corrosion, Types of corrosion (Theories of corrosion) Dry or Chemical corrosion and wet or electrochemical corrosion.	7	Gravimetric estimation of moisture in a given coal sample (proximate analysis) (Group-1)
	11	Factors affecting the corrosion, Passivity	8	Gravimetric estimation of moisture in a given coal sample (proximate analysis) (Group-2)
	12	Prevention of corrosion by Metallic coating- Sacrificial protection, Impressed current cathodic protection, cementation (Sheradizing, Chromizing, calorizing)		

5	13	Inorganic coatings- Anodizing and Phosphating Organic coatings: Paints, varnishes, enamels.	9	Determination of %age composition of volatile / nonvolatile matter in a given coal sample. (GP-1)
	14	Internal corrosion Preventive Measures- Alloying and Heat treatment ( Quenching and Annealing)	10	Determination of %age composition of volatile / nonvolatile matter in a given coal sample. (GP-2)
	15	Test / Assignment		
6	16	Fuels- Definition, Classification, characteristics of good fuel, Relative Merits of gaseous, Liquid and solid fuels.	11	Gravimetric estimation of ash content in given sample of coal (GP-1)
	17	Calorific Value (HCV and LCV) Determination of calorific value of a fuel using Bomb calorimeter.	12	Gravimetric estimation of ash content in given sample of coal (GP-1)
	18	Numerical problems on calorific value calculations.		
7	19	Coal- Types of coal and proximate Analysis of coal.	13	Determination of viscosity of given liquid using redwood viscometer. (GP-1)
	20	Fuel rating- Octane Number and Cetane Number influence of structure of fuel on Octane and Cetane No.	14	Determination of viscosity of given liquid using redwood viscometer. (GP-2)
	21	Gaseous fuels- CNG, LPG, Producer gas, water Gas.		
8	22	Bio Gas, Hydrogen as future fuels, Nuclear fuels	15	Determination of viscosity of given liquid using redwood viscometer. (GP-1)
	23	Test Assignment	16	Determination of viscosity of given liquid using redwood viscometer. (GP-2)
	24	Lubricants- Definition and Classification with examples		
9	25	Types of Lubrication- Hydrodynamic and Boundary lubrication with diagrams.	17	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-1)
	26	Physical properties of lubricants- Viscosity and viscosity index, cloud and pour point, flash and fire point, oiliness.	18	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-2)
	27	Chemical properties of lubricants- TAN number, coke number, emulsification factor, and Iodine value.		
10	28	Designation of lubricating oils according to society of automotive engineers.	19	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-1)
	29	Cutting Fluids- Applications of cutting fluids, Types and factors that govern the selection of cutting fluids.	20	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-2)
	30	Test / Assignment		
11	31	Engineering Materials and Refractories: Definitions and Types with suitable examples.	21	To study the effect of Metal coupling on corrosion of iron. (GP-1)
	32	Applications of ceramics refractory and composite materials	22	To study the effect of Metal coupling on corrosion of iron. (GP-2)
	33	Chemical composition and applications of soda, Borosilicate and lead glasses		
	34	Paints, varnish, Enamels- Constituents and advantages of these organic coatings.	23	Detection of iron metal in given sample of rust (GP-1)

12	35	Test / Assignment	24	Detection of iron metal in given sample of rust (GP-2)
	36	Definitions: Polymer, Monomer, degree of polymerization Addition Polymers- Polyethene, PVC, Teflon, Polystyrene		
13	37	Condensation polymers: Nylon66, Bakelite & others	25	Checking / Discussion of project Report – (Roll no 1-10)
	38	Plastics- thermoplastics and thermosetting polymers examples and their distinction.	26	Checking / Discussion of project Report – (Roll no 31-40)
	39	Examples of polymers in daily life and industry		
14	40	Test / Assignment	27	Checking / Discussion of project Report – (Roll no 11-20)
	41	Revision / Problem discussion – Unit-1	28	Checking / Discussion of project Report – (Roll no 41-50)
	42	Revision / Problem discussion – Unit-2		
15	43	Revision / Problem discussion – Unit-3	29	Checking / Discussion of project Report – (Roll no 21-30)
	44	Revision / Problem discussion – Unit-4	30	Checking / Discussion of project Report – (Roll no 51-60)
	45	Revision / Problem discussion – Unit-5,6		



## LESSON PLAN

Name of Faculty : Dr. Sanjay Kumar, Lecturer Applied Sciences

Discipline : Mechanical Engg. , Automobile Engg.

Semester : 2nd

Subject : Chemistry (Theory & Practical)

Work Load : Lectures 03, Practicals 04

Week	Lecture day	Theory (Including Assignments and Tests)	Practical Day	Practicals Topic
1	1	General Metallurgical terms-Metals, Non Metals, Mineral Ore, Gangue, Flux, Metallurgy.	1	General discussion about various instruments that will be used in practicals in 2nd semester and safety precautions in Gp-1 of students
	2	Metallurgical operations: Levigation, Electromagnetic separation, Froth Floatation Method, Calcination and Roasting	2	General discussion about various instruments that will be used in practicals in 2nd semester and safety precautions in Gp-2 of students
	3	Types of Metallurgy- Pyrometallurgy, Electrometallurgy, Hydrometallurgy, Refining of crude metal- Distillation Liquefaction, Electrorefining		
2	4	Basic introduction to Metallurgy of Iron, Copper, Aluminium	3	Gravimetric analysis and study of apparatus used therein (Group-1)
	5	Manufacture of steel: open hearth process.	4	Gravimetric analysis and study of apparatus used therein (Group-2)
	6	Alloys- Definition, types and purpose of alloy formation.		
3	7	Properties and application of ferrous alloys- Invar, Nichrome Stainless steel, alnico	5	Determination of %age purity of commercial sample of blue vitrol using N/20 Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (Group-1)
	8	Properties of non ferrous alloys- Brass, Bronze, duralumin, Magnalium and solder.	6	Determination of %age purity of commercial sample of blue vitrol using N/20 Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (Group-2)
	9	Test/ Assignment		
	10	Corrosion, Types of corrosion (Theories of corrosion) Dry or Chemical corrosion and wet or electrochemical corrosion.	7	Gravimetric estimation of moisture in a given coal sample (proximate analysis) (Group-1)

4	11	Factors affecting the corrosion, Passivity	8	Gravimetric estimation of moisture in a given coal sample (proximate analysis) (Group-2)
	12	Prevention of corrosion by Metallic coating- Sacrificial protection, Impressed current cathodic protection, cementation (Sheradizing, Chromizing, calorizing)		
5	13	Inorganic coatings- Anodizing and Phosphating Organic coatings: Paints, varnishes, enamels.	9	Determination of %age composition of volatile / nonvolatile matter in a given coal sample. (GP-1)
	14	Internal corrosion Preventive Measures- Alloying and Heat treatment ( Quenching and Annealing)	10	Determination of %age composition of volatile / nonvolatile matter in a given coal sample. (GP-2)
	15	Test / Assignment		
6	16	Fuels- Definition, Classification, characteristics of good fuel, Relative Merits of gaseous, Liquid and solid fuels.	11	Gravimetric estimation of ash content in given sample of coal (GP-1)
	17	Calorific Value (HCV and LCV) Determination of calorific value of a fuel using Bomb calorimeter.	12	Gravimetric estimation of ash content in given sample of coal (GP-1)
	18	Numerical problems on calorific value calculations.		
7	19	Coal- Types of coal and proximate Analysis of coal.	13	Determination of viscosity of given liquid using redwood viscometer. (GP-1)
	20	Fuel rating- Octane Number and Cetane Number influence of structure of fuel on Octane and Cetane No.	14	Determination of viscosity of given liquid using redwood viscometer. (GP-2)
	21	Gaseous fuels- CNG, LPG, Producer gas, water Gas.		
8	22	Bio Gas, Hydrogen as future fuels, Nuclear fuels	15	Determination of viscosity of given liquid using redwood viscometer. (GP-1)
	23	Test Assignment	16	Determination of viscosity of given liquid using redwood viscometer. (GP-2)
	24	Lubricants- Definition and Classification with examples		
9	25	Types of Lubrication- Hydrodynamic and Boundary lubrication with diagrams.	17	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-1)
	26	Physical properties of lubricants- Viscosity and viscosity index, cloud and pour point, flash and fire point, oiliness.	18	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-2)
	27	Chemical properties of lubricants- TAN number, coke number, emulsification factor, and Iodine value.		
	28	Designation of lubricating oils according to society of automotive engineers.	19	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-1)
	29	Cutting Fluids- Applications of cutting fluids, Types and factors that govern the selection of cutting fluids.	20	Determination of flash point of given lubricating oil using Able's flash point apparatus (Gp-2)

10	30	Test / Assignment		
11	31	Engineering Materials and Refractories: Definitions and Types with suitable examples.	21	To study the effect of Metal coupling on corrosion of iron. (GP-1)
	32	Applications of ceramics refractory and composite materials	22	To study the effect of Metal coupling on corrosion of iron. (GP-2)
33	Chemical composition and applications of soda, Borosilicate and lead glasses			
12	34	Paints, varnish, Enamels- Constituents and advantages of these organic coatings.	23	Detection of iron metal in given sample of rust (GP-1)
	35	Test / Assignment	24	Detection of iron metal in given sample of rust (GP-2)
	36	Definitions: Polymer, Monomer, degree of polymerization Addition Polymers- Polyethene, PVC, Teflon, Polystyrene		
13	37	Condensation polymers: Nylon66, Bakelite & others	25	Checking / Discussion of project Report – (Roll no 1-10)
	38	Plastics- thermoplastics and thermosetting polymers examples and their distinction.	26	Checking / Discussion of project Report – (Roll no 31-40)
	39	Examples of polymers in daily life and industry		
14	40	Test / Assignment	27	Checking / Discussion of project Report – (Roll no 11-20)
	41	Revision / Problem discussion – Unit-1	28	Checking / Discussion of project Report – (Roll no 41-50)
	42	Revision / Problem discussion – Unit-2		
15	43	Revision / Problem discussion – Unit-3	29	Checking / Discussion of project Report – (Roll no 21-30)
	44	Revision / Problem discussion – Unit-4	30	Checking / Discussion of project Report – (Roll no 51-60)
	45	Revision / Problem discussion – Unit-5,6		



Sweety Chhikara  
 Discipline: Automobile -2, I & C & Mech.-2 Engg  
 Semester Second  
 Subject: Applied Physics  
 Work load : Theory 04 and Practical 02

Week	Lecture Day	Theory (Including Assignments and Tests)	Practical Day	Practicals Topic
1	1	Wave motion, transverse wave, longitudinal wave, examples	1	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-1
	2	displacement, amplitude, time period, frequency, wavelength, wave velocity		
	3	Relationship between wave velocity, wavelength and frequency, simple harmonic motion	2	General Discussion about various instruments that will be used in practicals in second semester and precautions in GP-2
	4	simple harmonic motion with examples		
2	5	Assignment	3	To find the time period of a simple pendulum (GP-1)
	6	free, forced and resonant vibrations with examples	4	To find the time period of a simple pendulum (GP-2)
	7	Acoustics of buildings- reverberation, reverberation time, echo, noise, Coefficient of absorption of sound		
	8	Cantilever, definition and time period		
3	9	Assignment	5	To determine and verify the time period of a cantilever (GP-1)
	10	Ultrasonics- introduction and engineering applications( cold welding, drilling and SONAR		
	11	Reflection and refraction with laws, refractive index	6	To determine and verify the time period of a cantilever (GP-2)
	12	lens formula, power of lens, problems		
4	13	Total internal reflection and its conditions for occurrence	7	To verify Ohm's law by plotting a graph between voltage and current (GP-1)
	14	Microscope and telescope(definition		
	15	Uses of microscope and telescope	8	To verify Ohm's law by plotting a graph between voltage and current (GP-2)
	16	Assignment		
5	17	Coulomb's law, unit charge	9	To verify Laws of resistances in series combination (GP-1)
	18	Electric field, Electric lines of force(definition and properties)		
	19	Electric flux, Electric intensity and electric potential	10	To verify Laws of resistances in series combination (GP-2)
	20	Electric field intensity due a point charge, Gauss law including derivation		
6	21	Assignment	11	To verify Laws of resistances in parallel combination (GP-1)
	22	Capacitor and capacitance, units and formula		
	23	Series and parallel combination of capacitors	12	To verify Laws of resistances in parallel combination (GP-2)
	24	numerical problems		
7	25	Electric current and its unit, direct and alternating current	13	To find resistance of galvanometer by half deflection method (GP-1)
	26	Resistance and specific resistance(definition and units), conductance		
	27	Series and parallel combination of resistances	14	To find resistance of galvanometer by half deflection method (GP-2)
	28	Assignment		
8	29	Ohm's law(statement and formula), superconductivity(definition only)	15	To verify laws of reflection by light using mirror (GP-1)
	30	Heating current of current, electric power		
	31	Electric energy and its unit, Kirchoff's law	16	To verify laws of reflection by light using mirror (GP-2)
	32	Assignment		
9	33	Introduction to magnetism, types of magnetic materials	17	To identify different components like resistance, capacitor, diode (GP-1)
	34	dia, para, and ferromagnetic materials with examples		
	35	Magnetic field, magnetic intensity,magnetic lines of force	18	To identify different components like resistance, capacitor, diode (GP-2)
	36	magnetic flux and its units		
10	37	Assignment	19	To study colour coding scheme of resistance (GP-1)
	38	Electromagnetic induction(definition)		
	39	Energy bands	20	To study colour coding scheme of resistance (GP-2)
	40	Insulators, semiconductors and conductors		
11	41	Intrinsic and extrinsic semiconductors	21	Checking/Discussion of project report (Roll no. 1 - 10)
	42	p-n junction diode, VI characteristics		
	43	Diode as rectifier- half wave	22	Checking/Discussion of project report (Roll no. 31 - 40)
	44	Full wave rectifier(centre tap only)		
	45	pnp and npn transisors	23	Checking/Discussion of project report (Roll no. 11 - 20)

12	46	Assignment	23	Checking/Discussion of project report (Roll no. 11 - 20)
	47	Lasers, characteristics of laser light	24	Checking/Discussion of project report (Roll no. 41 - 50)
	48	Engineering and medical applications of laser		
13	49	Fibre optics- definitions and parts	25	Checking/Discussion of project report (Roll no. 21 - 30)
	50	Applications of fibre optics in different fields		
	51	Introduction to nano technology	26	Checking/Discussion of project report (Roll no. 51 - 60)
	52	Applications of nanotechnology in different fields		
14	53	Revision of first unit	27	Revision of Theory and practicals (GP-1)
	54	test of first unit		
	55	Revision of second unit	28	Revision of Theory and practicals (GP-2)
	56	test of second unit		
15	57	Revision of 6th unit	29	Revision of Theory and practicals (GP-1)
	58	Test of 6th unit		
	59	Test of syllabus	30	Revision of Theory and practicals (GP-2)
	60	Test of syllabus		