Name of Faculty: Neha sharma (theory) Neha sharma (Practical)
Discipline:Cse
Semester: 2nd
subject: Fundamental of computer
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)

week No.	theory		Practical	
	lecture no.	topic	practical No.	topic
1	1	Fundamentals: Hardware organization of a computer, CPU,	1	Write a Program to calculate sum of two numbers
	2	Input/ Output Devices,		
	3	Memories,		
2	4	Registers	2	Write a Program to calculate Simple Interest
	5	Ports.		
	6	Revision		
3	7	Different Number Systems:- Decimal Number System	3	Write a Program to find larger among two numbers
	8	Binary Number System		
	9	Octal Number System,		
4	10	Hexadecimal Number System, and their interconversions.	4	Write a Program to find largest among three numbers
	11	Operating System Basics: Introduction to Operating system, Functions of an Operating Systems,		
	12	Classification of Operating Systems		
5	13	Machine Language, Assembly Languages, High level Languages,	5	Write a Program to calculate roots of a quadratic equation
	14	Types of high level languages		
	15	Complier, Interpreter, Assembler, Loader, Linker		
6	16	Relationship between Compiler,	6	Write a Program to print 1 to 10 using loop
	17	Loader and Linker. Flowcharts		
	18	LAN, MAN, WAN,		
7	19	OSI Reference model,	7	Write a Program to print even numbers from 2 to 100
	20	Introduction to Internet and protocols: TCP/IP ref. model		
	21	Introduction to Internet and protocols: TCP/IP ref. model		
8	22	Network connecting devices. Hypertext documents,	8	Write a Program to print sum of digits of a number
	23	HTTP, DNS, Network Security.		
	24	Revision		

9	25	Basic and Derived Data Types: Constants, Variables and Data types,	9	Write a Program to print the reverse of a number entered by user
	26	operators and Expressions		
	27	managing I/O operations, Decision Making, branching and looping,		
10	28	Derived Data Types like Arrays, Strings	10	Write a Program to print table of a number
	29	Structure and Union in C: Defining structure, declaring variables,		
	30	Accessing structure members, structure initialization		
11	31	copying and comparing structures variables, operations on individual members,	11	Write a Program to print the Fibonacci series
	32	Revision		
	33	Array of structure, structure with structure, unions		
12	34	Introduction, Understanding Pointers	12	Write a Program to calculate factorial of a number
	35	Accessing the address of a variable, Declaring Pointer Variables		
	36	Initialization of Pointer Variables, Pointer Expressions		
13	37	Revision	13	Write a Program to find a^b
	38	Pointer Increments and Scale Factors, pointers		
	39	Arrays, Pointerand Character Strings		
14	40	Pointers as Function Arguments,	14	Write a Program to check if number is Prime
	41	Pointers to Functions.		
	42	Revision		
15	43	Defining and opening file, closing file,	15	Write a Program to find largest and smallest element in an array
	44	I/O operation on files,		
	45	error handling during I/O operations		

Name of Faculty:Arti
Discipline:Applied science
Semester: 2nd
subject: Mathematics II
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)

week No.	**syllabus**	
	lecture no.	**topic**
1	1	Exact differential equation of first order
	2	Equations reducible to exact differential equation
	3	problems

	4	differential equation of second and higher order
2	5	Complete solutions of linear differential equations(Complementary Function + Particular Integral)
	6	problems
	7	Method of variation of parameter to find Particular Integral
	8	Cauchy's and Legendre's linear Equation
3	9	problems
	10	Simultaneous linear equations with constant co-efficient
	11	Application of linear differential equations to Electric circuits(LC,LCR circuit)
	12	problems
4	13	Newton's law of cooling,
	14	Heat flow, Orthogonal trajectory
	15	problems
	16	Revision
5	17	Assignment-1
	18	Laplace-transforms of elementary functions,
	19	Elementary properties of Laplace-transforms
	20	problems
6	21	Existence conditions,
	22	Transforms of derivatives
	23	problems
	24	Transforms of Integrals, Multiplications by tn,
7	25	division by t
	26	problems
	27	Evaluation of integrals by Laplace –transforms, Second shifting Theorem
	28	Inverse transforms
8	29	problems
	30	Convolution theorem
	31	Applications to linear differential equations to solve boundary value problems with constants coefficients and simultaneous linear differential equations with constant coefficients.
	32	problems
	33	Revision
	34	Assignment-2

9	35	Formation of partialdifferential equations.
	36	Lagrange's linear partial –differential equations
10	37	problems
	38	First order non-linear partial differential equations
	39	Charpit's method
	40	problems
11	41	Homogeneous Partialdifferential equation of second and higher order
	42	problems
	43	Method of Separation of Variables and its applications to wave equation and one dimensional Heat equation
	44	problems
12	45	Revision
	46	Assignment-3
	47	Convergence and divergence of Infinite series,
	48	Comparison Test
13	49	D'Alembert's Ratio Test
	50	problems
	51	Gauss Test
	52	Integral Test, Raabe's Test,
14	53	problems
	54	Logarithmic Test
	55	Cauchy's Root Test,
	56	problems
15	57	Alternating Series,
	58	Conditional Convergence & Absolute Convergence.
	59	problems
	60	Revision

Name of Faculty: Priyanka (theory) Priyanka (Practical)
Discipline:Applied science
Semester: 2nd
subject: Physics
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)

week No.	**theory**		**Practical**	
	lecture no.	**topic**	**practical No.**	**topic**

1	1	Space lattice, unit cell and translation vector	1	To find the low resistance by carey - Foster's bridge.
	2	Miller indices		
	3	inter-planar spacing		
	4	simple crystal structure (NaCl and Diamond)		
2	5	Bragg's law,Laue method	2	To find the resistance of a galvanometer by Thomson's constant diffelction method using a post office box.
	6	Point defects in solids – Schottky and Frenkel defects		
	7	Difficulties with Classical physics		
	8	Introduction to quantum mechanics-simple concepts		
3	9	Black Body radiation, Planck's radiation law	3	To find the value of high resistances by Substitution method.
	10	deBroglie hypothesis		
	11	phase velocity and group velocity		
	12	Schrodinger wave equations-time dependent and time independent		
4	13	Particle in a one-dimensional box	4	To find the value of high resistances by Leakage method.
	14	Elementary idea of Quantum Statistics (Bose-Einstein and Fermi-Dirac Statistics)		
	15	distribution function		
	16	Revision		
5	17	Assignment-1	5	To study the characteristics of a solar cell and to find the fill factor.
	18	Basic principle of Nanoscience and Nanotechnology		
	19	synthesis of nanoparticles		
	20	techniques- ball milling		
6	21	sputtering, plasma synthesis	6	To find the value of e/m for electrons by Helical method.
	22	properties of nanoparticles-mechanical, optical		
	23	magnetic and electronic; introduction to carbon nanotubes		
	24	Elements of classical free electron theory and its limitations		
7	25	Drude's theory of conduction, quantum theory of free electrons	7	To find the ionisation potential of Argon/Mercury using a thyratron tube
	26	Fermi level, density of states		
	27	Fermi-Dirac distribution function		
	28	Concept of thermionic emission-Richardson equation		
8	29	Revision	8	To study the variation of magnetic field with distance and to find the radius of coil by Stewart and Gee's
	30	Assignment-2		
	31	Origin of energy bands,		
	32	Kronig-Penny model (qualitative)		
9	33	E-K diagrams, Brillouin Zones	9	To study the characteristics of (Cu-Fe, Cu-Constantan)
	34	concept of effective mass and holes		

9	35	Classification of solids into metals	9	(Cu-Fe, Cu-Constantan) thermo couple.
	36	semiconductors and insulators		
10	37	Fermi energy and its variation with temperature	10	To find the value of Planck's constant by using a photo electric cell
	38	Hall Effect and its applications		
	39	Photoconductivity in insulating crystal		
	40	variation with illumination		
11	41	effect of traps, application of photoconductivity	11	To find the value of co-efficient of self-inductance by using a Rayleigh bridge.
	42	photovoltaic cells		
	43	solar cell and its characteristics		
	44	Revision		
12	45	Assignment-3	12	To find the value of Hall Co-efficient of semi-conductor.
	46	Atomic magnetic moments		
	47	orbital diamagnetism		
	48	classical theory of paramagnetism		
13	49	ferromagnetism- molecular fields and domains	13	To study the V-I characteristics of a p-n diode
	50	Introduction (Experimental survey)		
	51	Meissner effect		
	52	London equations		
14	53	Hard and Soft superconductors	14	To find the band gap of intrinsic semi-conductor using four probe method
	54	Elements of BCS Theory		
	55	Applications of superconductors		
	56	Revision		
15	57	Assignment-4	15	To calculate the hysteresis loss by tracing a B-H curve.
	58	question paper revision		
	59	question paper revision		
	60	question paper revision		

Name of Faculty: Vinod bhati				
Discipline:Applied science				
Semester: 2nd				
subject: Interactive english				
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)				
week No.	**theory**			
	lecture no.	**topic**		
1	1	Shakespeare's Macbeth(story adaptation of play)		
	2	Romantic poetry-'The Chimney Sweeper' by Blake		
	3	'To Autumn' by John Keats		
	4	'The Rainbow' by William Wordsworth,		
	5	'Ozymandias' by PB Shelley		

2	6	'The Rime of the Ancient Mariner' (text of 1834) –Part-I and Part-II by Samuel Coleridge
3	7	Historical context of Romantic poetry-French Revolution and Industrial revolution.
	8	Revision
	9	Assignment-1
4	10	Report Writing- hypothesis-evidence-thesis
	11	Proposals/Feasibility and Progress Reports/Memo/Letter formats
	12	Essays/paragraphs
5	13	applications; description of objects
	14	appliances, instruments
	15	products, processes
6	16	Revision
	17	Assignment-2
	18	Critical thinking
7	19	creative writing exercises
	20	Seven Cs of writing
	21	Story composition
8	22	news reports
	23	feature writing
	24	verse composition
9	25	Paraphrasing poems
	26	comprehending Unseen Passages
	27	writing biographies
10	28	art of interviewing
	29	book reviews
	30	Revision
11	31	Assignment-3
	32	Antonyms
	33	synonyms
12	34	homophones
	35	words often confused
	36	one word substitutes
13	37	word origins
	38	sentence correction/error correction exercises in basic gramma
	39	Assignment-4
14	40	Revision of unit 1
	41	Revision of unit 2
	42	Class test of unit test 1,2
15	43	Revision of unit 3
	44	Revision of unit 4
	45	Class test of unit test 3,4

Name of Faculty: KARAN KUMAR(theory)		
Discipline: EE		
Semester: 2nd SEM		
subject: Eelement of electronics engg.		
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)		
week No.	**theory**	
	lecture no.	**topic**
1	1	UNIT I Semiconductor Physics: Overview of Semiconductors, PN junction diode and
	2	Zener diode –Diode circuits: rectifiers, filters, clippers and
	3	clampers - BJT construction, operation, characteristics (CB, CE and CC CONFIGURATION
2	4	JFET and MOSFET construction, operation,
	5	characteristics and uses.
	6	UNIT II Digital Electronics: Binary, Decimal, Octal and Hexadecimal number systems
3	7	conversions, Boolean Algebra, De Morgan's theorem, logic gates
	8	Combinational and sequential circuits,
	9	Introduction to flip-flops
4	10	J-K FLIP FLOPS
	11	UNIT III Electronics Instruments: Role, importance and applications of general-purpose
	12	test instruments like Multimeter: Digital & Analog, Cathode Ray Oscilloscope
5	13	(CRO), Function/Signal Generator.
	14	UNIT IV Optoelectronic Devices and Displays: Photoconductive cell - photovoltaic cell -
	15	solar cell – photodiodes – phototransistors, Seven segment display: Common anode
6	16	and Common cathode connections and applications.
	17	
	18	LED DISPLAY
7	19	Construction,
	20	Working,
	21	Advantages, Disadvantages

8	22	APPLICATION OF LED DISPLAY
	23	LCD DISPLAY
	24	Types of LCD display
9	25	dynamics and scattering and field effect type
	26	construction of lcd
	27	working of lcds
10	28	advantages of lcds
	29	application of lcds
	30	disadvantagesof lcds
11	31	UNIT V Communication System: Block diagram
	32	of a basic communication system
	33	
12	34	frequency spectrum
	35	
	36	need of modulation
13	37	
	38	methods of modulation
	39	
14	40	AM, FM, PM , pulse analog and pulse digital
	41	modulation – AM / FM transmitters
	42	
15	43	
	44	receivers (block diagram only)
	45	

Name of Faculty: KARAN KUMAR(theory)		
Discipline: EE		
Semester: 2nd se		
subject Basic of electrical engg.		
Lesson plan Duration: 15 weeks (jan 2018 to april 2018)		
week No.	**theory**	
	lecture no.	**topic**
1	1	UNIT I DC Circuits: Ohm's Law and Kirchhoff‟s Laws; Analysis of series, parallel and
	2	series-parallel circuits excited by independent voltage sources; Power and energy;
	3	Electromagnetism:- Faradays Laws, Lenz's Law, Fleming's Rules, Statically and dynamically
	4	induced EMF; Concepts of self inductance, mutual inductance and coefficient of coupling;

2	5	Energy stored in magnetic fields; Hysteresis and Eddy current losses.
	6	UNIT II Network Theorems: Superposition, Thevenin's and Norton's, Reciprocity,
3	7	Compensation, Maximum Power transfer, Tellegan's and Millman's theorems, Application
	8	of theorems to dc and ac circuits.
	9	UNIT III AC Circuits: Single Phase A.C. Circuits :- Generation of sinusoidal voltagedefinition
4	10	of average value, root mean square value, form factor and peak factor of sinusoidal
	11	voltage and current and phasor representation of alternating quantities; Analysis with phasor
	12	diagrams of R, L, C, RL, RC and RLC circuits; Real power, reactive power, apparent power
5	13	and power factor, series, parallel and series-parallel circuits, Series and Parallel resonance,
	14	selectivity, bandwidth and Q factor, earthing
	15	
6	16	Three Phase A.C. Circuits:- Necessity and Advantages of three phase systems, Generation of
	17	three phase power, definition of Phase sequence, balanced supply and balanced load;
	18	Relationship between line and phase values of balanced star and delta connections; Power in
7	19	balanced three phase circuits, measurement of power by two wattmeter method.
	20	UNIT IV Electrical Machines:
	21	Transformers: - Principle of operation
8	22	construction of single phase transformers
	23	EMF equation,
	24	losses,
9	25	efficiency
	26	voltage regulation

	27	principle of operation of an Auto Transformer.
10	28	application of transformers
	29	Synchronous Generators
	30	principle of synchronous motor
11	31	constructional features
	32	Applications
	33	working principle and operation of dc machine
12	34	
	35	Classification and Applications.
	36	
13	37	
	38	Three Phase Induction Motor:- Principle of Rotating Magnetic Field,
	39	
14	40	
	41	principle of of 3-Phase Induction Motor, Starting Methods
	42	
15	43	
	44	
	45	application of three phase induction motor