Lesson Plan	
Name of the Faculty:	**Tarun Singhal**
Discipline:	**IT**
Semester:	**3rd**
Subject:	**Electronics Fundamentals (ES-201 A)** **Basic Electronics Lab (es-211LA)**
Lesson Plan Duration:	**15 weeks (from July, 2018 to November, 2018)**
Work Load (Lecture/Practical) per week (In hours):	**Lecture-3, Practical - 2**

Week	Lecture Day	Theory		Practical	
		Topic (Including Assignment/Test)		**Practical Day**	**Topic**
1	1.	Classification of semiconductor , PN junction diodes and		1	To study CRO
	2.	VI characteristics of PN junction diode			
	3.	Application of PN junction diode : Half wave , full wave type rectifier circuits			
2	4.	bridge type rectifier circuits		2	To plot the VI characteristics of PN junction diode
	5.	clipper circuit			
	6.	Zener and Avalanche breakdown			
3	7.	Zener diode as a voltage regulator , VI characteristics		3	To plot the VI characteristics of Zener diode.
	8.	Light emitting Diode (LED)			
	9.	Revision of Unit-1			
4	10.	Types of transistor		4	To study the half and full wave rectifier
	11.	Characteristic of transistor in Common Base and Common Emitter			

		configuration		
	12.	Transistor load line , operating point		
5	13.	Faithful amplification , Stabilisation	5	To study the Bridge rectifier.
	14.	Transistor Biasing for NPN transistor		
	15.	Single Stage NPN common emitter amplifier		
6	16.	NPN transistor as switch	6	To plot the VI characteristics of transistor in CB mode
	17.	Revision of Unit-2		
	18.	Problems from Unit 1-2		
7	19.	Problems from Unit 1-2	7	To plot the VI characteristics of transistor in CE mode
	20.	Discussion of Sessional-1		
	21.	Tank circuit , Barkhausen Criteria		
8	22.	Tuned collector oscillator	8	To study Zener diode as a voltage regulator
	23.	Colpitt's oscillator		
	24.	Hartley oscillator		
9	25.	Phase shift oscillator	9	To study Zener diode as a voltage regulator
	26.	Wien Bridge oscillator		
	27.	Crystal oscillator		
10	28.	Revision of Unit-3	10	To study RC oscillator
	29.	Elements of measurement system		
	30.	Characteristics of measuring devices-1		
11	31.	Characteristics of measuring devices-2	11	To study RC oscillator
	32.	Error , Types of Error		
	33.	Transducer , classification of transducer		
12	34.	---do---	12	To study single stage CE amplifier
	35.	Characteristics of good transducer		
	36.	Selection criteria of transducer for measurement		

13	37.	---do---	13	To study single stage CE amplifier
	38.	LVDT		
	39.	Thermocouple		
14	40.	Block diagram of Digital Data Acquisition System	14	To study LVDT for linear displacement
	41.	---do---		
	42.	Revision of Unit-4		
15	43.	Problems from Unit 3-4	15	To study LVDT for linear displacement
	44.	Discussion of Sessional-1		
	45.	**Content Beyond Curriculum**		

Lesson Plan

Name of the Faculty:	Er. Vikram Verma
Discipline:	B.Tech (IT)
Semester:	3rd
Subject:	Digital Electronics and Logic Design (ES-217 A) and Digital Electronics and logic designLab (ES-217 LA)
Lesson Plan Duration:	15 weeks (from July, 2018 to November, 2018)
Work Load (Lecture/Practical) per week (In hours):	Lecture-3, Practical - 2

Week	Lecture Day	Theory		Practical	
		Topic (Including Assignment/Test)		Practical Day	Topic
1	1.	Introduction to Digital Electronics		1	To study the logic trainer kit
	2.	Number system			
	3.	1's and 2's compliment			
2	4.	Arithmatic using compliments		2	Study of TTL gates – AND, OR, NOT, NAND, NOR, EX-OR, EX-NOR.
	5.	Logic gates			
	6.	Binary codes			
3	7.	--do--		3	Design & realize a given function using K-maps and verify its performance
	8.	Boolean algebra			
	9.	SOP and POS forms			
4	10.	K map		4	Study of half and Full adder
	11.	Reduction using K map			
	12.	QM method			
5	13.	Reduction using K map		5	Study of half and Full subtractor
	14.	Reduction using K map			
	15.	Introduction to combinational circuits			
6	16.	Half & full adder		6	To verify the operation of

	17.	Half & full subtractor		multiplexer & Demultiplexer
	18.	Introduction to multiplexer		
7	19.	MUX tree	7	To verify the operation of comparator
	20.	Function implementation using MUX		
	21.	Introduction to demultiplexer		
8	22.	DEMUX tree	8	Implementation of circuit using MUX
	23.	Function implementation using DEMUX		
	24.	Decoder		
9	25.	Function implementation using decodersDEMUX	9	Implementation of circuit using DEMUX
	26.	Encoders / Code converters		
	27.	Display drivers		
10	28.	Introduction to sequential circuits	10	To verify the truth tables of S-R, J-K, T & D type flip flops
	29.	Concept of latches and flip flop		
	30.	flip flop		
11	31.	Race around condition	11	To design & verify the operation of 3-bit synchronous counter
	32.	Asynchronous Counters		
	33.	Synchronous Counters		
12	34.	Shift Register	12	To design and verify the operation of synchronous UP/DOWN decade counter using J K flipflops
	35.	Shift register		
	36.	Sample and hold circuit, Quantization		
13	37.	Weighted resistor DAC	13	Design a 4-bit shift-register and verify its operation.
	38.	R-2 R ladder DAC		
	39.	Specifications for D/A converters		
14	40.	Flash & Successive approximation ADC	14	To verify the operation of bi-directional shift register

	41.	Programmable Logic Devices		
	42.	Implementation of simple functions using PLA		
15	43.	Implementation of simple functions using PAL	15	Study of ADC circuit
	44.	Specifications of ADCs.		
	45.	Revision		

Name of the Faculty:	Rakhi Sharma
Discipline:	B.tech (IT)
Semester:	3rd
Subject:	Data Structures (PC-IT-205A)
Lesson Plan Duration:	15 weeks (from July, 2018 to November, 2018)
Work Load (Lecture/Practical) per week (In hours):	Lecture-03

Week	Lecture Day	Theory
		Topic (Including Assignment/Test)
1	40.	Data Types, Built in and User Defined data type
	41.	Different type of Data Structures, Applications of Data Structure
	42.	Definition of Algorithm, Algorithm Analysis, Worst, Best and Average Case Analysis
2	43.	Define Array , Lower Bound , Upper Pound.
	44.	One Dimensional Arrays, Two Dimensional Arrays and Multi-Dimensional Arrays
	45.	Addressing an element in array, Sparse Matrices
3	46.	Linear and Binary Searching Algorithm
	47.	Selection Sort and Insertion Sort Algorithm
	48.	Bubble Sort and Radix Sort Algorithm
4	49.	Definition, Implementation of Stacks
	50.	Stack Operations
	51.	Evaluation of Infix, prefix and Postfix Expression
5	52.	Inter-conversion of Infix Expression, Prefix and Post-Fix Expression
	53.	Implementation of Merge Sort and Quick Sort Algorithm.
	54.	Queue Definition, Sequential Implementation of Linear Queues
6	55.	Queue Operations, priority queue.
	56.	Circular Queue and Its Implementation,, Applications of queues.
	57.	Dynamic Implementations, Need of Dynamic Data Structures
7	58.	Single Link List and Its Dynamic Implementation
	59.	Traversing, Insertion, of linked list
	60.	Deletion Operations on Single Link Lists.

8	61.	Comparison between Static and Dynamic Implementation of Linked List.
	62.	Dynamic Implementation of Stacks and Queues
	63.	Circular Link Lists and Doubly Link List,
9	64.	Dynamic Implementation of Primitive Operations on Doubly Linked Lists and Circular Link List.
	65.	Definition, , ,
	66.	Basic Terminology of Binary Tree
10	67.	External and Internal Nodes
	68.	Static and Dynamic Implementation of a Binary Tree
	69.	Primitive Operations on Binary Trees
11	70.	Binary Tree Traversals: Per-Order
	71.	In-Order And Post-Order Traversals.
	72.	Representation of Infix
12	73.	Post-Fix and Prefix Expressions using Trees.
	74.	Introduction to Binary Search Trees: B trees
	75.	B+ trees
13	76.	AVL Trees
	77.	Threaded Binary trees,
	78.	Balanced Multi-way search trees
14	40.	Implementation of Heap Sort Algorithm
	41.	Basic Terminology, Definition of Undirected & Directed Graphs,
	42.	Memory Representation of Graphs,
15	43.	Minimum-Spanning Trees,
	44.	Warshal Algorithm,
	45.	Graph Traversals Algorithms: Breadth First and Depth First,.

Lesson Plan

Name of Teacher ;	Er. Vikas Juneja
Discipline:	B.Tech (IT)
Semester:	3RD
Subject:	Object oriented programming using C++(PC-IT-207A) Object Oriented Programming Lab (PC-IT-215LA)
Lesson Plan Duration	15 w1eeks (from July, 2018 to November, 2018)
Work Load (Lecture/Practical) per week (In hours):	Lecture-3, Practical-3

Week		Theory	Practical	
	Lecture Day	Topic (Including Assignment/Test)	Practical Day	Topic
1	1	Introduction to C++	1	Raising a number n to a power p is the same as multiplying n by itself p times. Write a function called power ( ) that takes a double value for n and an int value for p, and argument of 2 for p, so that if this argument is omitted, the number will be squared. Write a main ( ) function that returns the result as double value.
	2	C++ Standard Library		
	3	Basics of a Typical C++		
2	4	Environment, Pre-processors Directives, Illustrative Simple C++ Programs	2	A point on the two two numbers can represent dimensional plane: an X coordinate and a Y coordinate.WAP to calculate the sum of two points
	5	Header Files and Namespaces		
	6	library files. Concept of objects,		
3	7	basic of object modeling, object classes,	3	Create the equivalent of a four function calculator.
	8	associations, behaviors, description		
	9	Object Oriented Analysis & Object Modeling techniques		
	10	Introduction to Objects		

4		and Object Oriented Programming	4	WAP that uses a structure to store these three parts of a phone number separately. Call the structure phone. Create two structure variables of type phone. Initialize one, and have the user input a number for the other one. Then display both numbers.
	11	Encapsulation(Information Hiding), Access Modifiers: Controlling access to a class, method, or variable		
	12	(public protected, private, package), Other Modifiers		
5	13	Polymorphism: Overloading,, Inheritance, Overriding Methods, Abstract Classes	5	Create two classes DM and DB which store the value of distances. DM stores distances in metres and centimeters and DB in feet and inches.Write a program that can read values for the class objects and add one object of DM with another object of DB. Use a friend function to carry out the addition operation.
	14	**Assignment-1**		
	15	Reusability, Class's Behaviors, Classes and Data Abstraction, Introduction, Structure Definitions, Accessing Members of Structures		
6	16	Class Scope and Accessing Class Members, Separating Interface from Implementation	6	Create a class rational which represents a numerical value by two double values-NUMERATOR & DENOMINATOR. Include the
	17	Controlling Access Function And Utility Functions		

				Constructors, reduce( ) & other overloading member Functions
	18	Initializing Class Objects: Constructors, Using Default Arguments With Constructors, Using Destructors		
7	19	Classes : Const(Constant) Object And Const Member Functions	7	Create a class Father. Then derive two classes son & daughter. Use same function in all three classes to show Polymorphism in action
	20	Object as Member of Classes, Friend Function and Friend Classes		
	21	Using This Pointer, Dynamic Memory Allocation with New and Delete		
8	22	Static Class Members, Container Classes And Integrators, Proxy Classes	8	Write a program that creates a binary file by reading the data for the students from the terminal.
	23	Function overloading, Operator Overloading: Introduction, Fundamentals of Operator Overloading		
	24	Restrictions On Operators Overloading, Operator Functions as Class Members vs. as		

		Friend Functions		
9	25	Overloading, <<, >> Overloading Unary Operators	9	A hospital wants to create a database regarding its indoor patients. Create a structure to store the date (year, month and date as its members). Create a base class to store the above information. The member function should include functions to enter information and display a list of all the patients in the database. Create a derived class to store the age of the patients. List the information about all the to store the age of the patients. List the information about all the pediatric patients (less than twelve years in age).
	26	Overloading Binary Operators		
	27	Inheritance: Introduction, Inheritance: Base Classes And Derived Classes		
10	28	Protected Members, Casting Base- Class Pointers to Derived- Class Pointers	10	Make a class Employee with a name and salary. Make a class Manager inherit from Employee. Add an instance variable, named department, of type string. Supply the methods and test the program
	29	Using Member Functions, Overriding Base – Class Members in a Derived Class,Public, Protected and Private Inheritance, Using Constructors and Destructors in derived Classes		

Lesson Plan

Name of the Faculty:	Ankita
Discipline:	B.Tech (IT)
Semester:	3rd
Subject:	Mathematics – III (BS-205 A)
Lesson Plan Duration:	15 weeks (from July, 2018 to November, 2018)
Work Load (Lecture/Practical) per week (In hours):	Lecture-3

Week	Lecture Day	Theory Topic (Including Assignment/Test)
1	1.	**UNIT-I** Sequence and Series:introduction
	2.	Convergence of sequence and series,
	3.	tests for convergence Comparison test,
2	4.	D'Alembert's Ratio test
	5.	Logarithmic test
	6.	Cauchy root test
3	7.	Raabe's test
	8.	Fourier series: Introduction Fourier-Euler Formula
	9.	Dirichlet's conditions Change of intervals
4	10.	Fourier series for even and odd functions
	11.	Half range sine and cosine series.
	12.	**UNIT-II** First order ordinary differential equations
5	13.	Exact ordinary differential equations
	14.	linear ordinary differential equations

	15.	Bernoulli's equations
6	16.	Euler's equations
	17.	Equations not of first degree: equations solvable for p, equations solvable for y,
	18.	equations solvable for x and Clairaut's type
7	19.	Differential equations of higher orders: Second order linear differential equations with constant coefficients
	20.	Second order linear differential equations with constant coefficients continued
	21.	method of variation of parameters
8	22.	Cauchy and Legendre's linear differential equations.
	23.	**UNIT-III** Multivariable Calculus (Integration):
	24.	Multiple Integration: Double integrals (Cartesian),
9	25.	Double integrals (Cartesian),
	26.	change of order of integration in double integrals
	27.	Change of variables (Cartesian to polar)
10	28.	Applications: areas and volumes
	29.	Triple integrals (Cartesian)
	30.	orthogonal curvilinear coordinates
11	31.	orthogonal curvilinear coordinates continued
	32.	Simple applications involving cubes
	33.	Simple applications involving sphere
12	34.	Simple applications involving rectangular parallelepipeds
	35.	**UNIT-IV** Vector Calculus: Introduction
	36.	Scalar and Vector point functions

13	37.	Gradient and their properties
	38.	divergence and their properties
	39.	Curl and their properties,
14	40.	Directional derivative ,Line integrals
	41.	surface integrals
	42.	volume integrals
15	43.	Theorems of Green
	44.	Gauss and Stokes (without proof).
	45.	Gauss and Stokes (without proof) continued.

			Lesson Plan		

Name of the Faculty:	Dr. Vandana
Discipline:	B.Tech (IT)
Semester:	3rd
Subject:	Fundamentals of Management (HM-905 A)
Lesson Plan Duration:	15 weeks (from July, 2018 to November, 2018)
Work Load (Lecture/Practical) per week (In hours):	Lecture-3

Week	Lecture Day	Class	Topic/Chapter Covered	Academic Activity	Test/ Assignment
1st	L1	B.Tech IT- 3rd Semester	Concept, nature and objectives of business	Lecture	
	L2	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L3	B.Tech IT- 3rd Semester	social responsibility of business	Lecture	
2nd	L4	B.Tech IT- 3rd Semester	social responsibility of business	Lecture	
	L5	B.Tech IT- 3rd Semester	Constituent of Business Environment; Economic, Social, Political, Legal and technological.	Lecture	
	L6	B.Tech IT- 3rd Semester	-- DO --	Lecture	
3rd	L7	B.Tech IT- 3rd Semester	Definition, Nature and Significance of Management,	Lecture	
	L8	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L9	B.Tech IT- 3rd Semester	Henry Fayol's Principles of Management	Lecture	
4th	L10	B.Tech IT- 3rd Semester	-- DO --	Lecture	Assignment from 1st Unit
	L11	B.Tech IT- 3rd Semester	Functions of Management	Lecture	
	L12	B.Tech IT- 3rd Semester	-- DO --	Lecture	
5th	L13	B.Tech IT- 3rd Semester	Introduction of Financial Management	Lecture	

	L14	B.Tech IT- 3rd Semester	Objectives of Financial Decisions,	Lecture	
	L15	B.Tech IT- 3rd Semester	Financial Planning-Tools of financial planning,	Lecture	
6th	L16	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L17	B.Tech IT- 3rd Semester	Management of working capital,	Lecture	
	L18	B.Tech IT- 3rd Semester	Factors affecting requirements of working capital.	Lecture	
7th	L19	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L20	B.Tech IT- 3rd Semester	Capital Structure decisions. Features of appropriate capital structure.	Lecture	
	L21	B.Tech IT- 3rd Semester	-- DO --	Lecture	
8th	L2	B.Tech IT- 3rd Semester	Sources of finance.	Lecture	
	L22	B.Tech IT- 3rd Semester	-- DO --	Lecture	Assignment from 2nd unit
	L23	B.Tech IT- 3rd Semester	Personnel Management-Meaning, Nature and importance,	Lecture	
9th	L24	B.Tech IT- 3rd Semester	Functions of Personnel Management (a) Managerial Functions and (b) Operative functions.	Lecture	
	L25	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L26	B.Tech IT- 3rd Semester	Job Analysis; Meaning and importance; Process of Job Analysis,	Lecture	
10th	L27	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L28	B.Tech IT- 3rd Semester	Job Description and Job Specification.	Lecture	
	L29	B.Tech IT- 3rd Semester	Human Resource Development-Meaning and Concept.	Lecture	Assignment from 3rd unit
11th	L30	B.Tech IT- 3rd Semester	Production Management: Definition and objectives.	Lecture	
	L31	B.Tech IT- 3rd Semester	Plant Location: Ideal plant location, Factors affecting plant location.	Lecture	
	L32	B.Tech IT- 3rd Semester	Plant Layout: Ideal plant layout, Factors affecting Plant layout.	Lecture	
12th	L33	B.Tech IT- 3rd Semester	-- DO --	Lecture	

	L34	B.Tech IT- 3rd Semester	Work Measurement: Meaning Objectives and Essentials of work measurement.	Lecture	
	L35	B.Tech IT- 3rd Semester	-- DO --	Lecture	
13th	L36	B.Tech IT- 3rd Semester	Production Control: meaning and Importance of production control and steps involved in production control.	Lecture	Assignment from 4TH Unit
	L37	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L38	B.Tech IT- 3rd Semester	Nature, scope and importance of marketing management.	Lecture	
14th	L39	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L40	B.Tech IT- 3rd Semester	Modern Marketing concepts.	Lecture	
	L41	B.Tech IT- 3rd Semester	Role of marketing in economics development.	Lecture	
15th	L42	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L43	B.Tech IT- 3rd Semester	Marketing Mix.	Lecture	
	L44	B.Tech IT- 3rd Semester	-- DO --	Lecture	
16th	L45	B.Tech IT- 3rd Semester	Marketing Information System.	Lecture	
	L46	B.Tech IT- 3rd Semester	-- DO --	Lecture	
	L47	B.Tech IT- 3rd Semester	Meaning, nature and scope of International Marketing	Lecture	
	L48	B.Tech IT- 3rd Semester	-- DO --	Lecture	Assignment from 5th unit