LESSON PLAN

Name of the Faculty: Prem Sagar Sharma

Discipline: B. Tech.

Semester: 2nd

Subject: Fundamentals of Computer and Programming with C

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

Work load (Lecture /Practical) per week (in hours): Lecture-03Practical/02

Week		Theory		Practical	
	Lecture Day	**Topic(including assignment/test)**	**Practical Day**	**Topic**	
Week-1	1st	**Fundamentals:** Hardware organization of a computer, CPU	1st	Introduction of C Language and Compare with English Language	
	2nd	Input/ Output Devices			
	3rd	Memories, Registers, Ports.			
Week-2	4th	Different Number Systems:	2nd	Introduce C- Compiler with students in Lab & Explain the Execution process of C - Compiler	
	5th	Decimal Number System			
	6th	Binary Number System			
Week-3	7th	Octal Number System	3rd	Comparison between Compiler & Interpreter	
	8th	Hexadecimal Number System			
	9th	Inter-conversions.			
Week-4	10th	**Operating System Basics:** Introduction to Operating system	4th	Define the Program and introduce C Editor, How to write a program	
	11th	Functions of an Operating Systems			
	12th	Classification of Operating Systems			
Week-5	13th	Machine Language, Assembly Languages, High level Languages	5th	How to write a simple instruction: Define: printf()	
	14th	Types of high level languages			
	15th	Complier & Interpreter			

Week-6	16th	Assembler, Loader, Linker	6th	C-Tokens:
	17th	Relationship between Compiler, Loader and Linker		Constant Variables Keyword in C
	18th	Flowcharts		

		UNIT-III		
Week-7	19th	**Basic Introduction to Computer Networks:** LAN, MAN, WAN	7th	**Data Types in C:** Solve the Problem No.-1,2
	20th	OSI Reference model		
	21st	**Introduction to Internet and protocols:** TCP/IP ref. model		
Week-8	22nd	Network connecting devices	8th	Define some common syntax & logical errors
	23rd	Hypertext documents		
	24th	HTTP, DNS, Network Security.		
Week-9	25th	**An Overview of C:** Basic and Derived Data Types, Constants, Variables, Data types	9th	Solve the Problem No.-3,4,5,6
	26th	operators and Expressions		
	27th	Managing I/O operations, Decision Making		
Week-10	28th	branching and looping	10th	Solve the Problem No.-16,17,18,19
	29th	Derived Data Types like Arrays, Strings		
	30th	**Structure and Union in C:** Defining structure, declaring variables, Accessing structure members, structure initialization,		
Week-11	31st	Copying and comparing structures variables	11th	**Define function and Recursive Function:** Solve the Problem No.-20,21,24,15
	32nd	Operations on individual members, Array of structure,		
	33rd	Structure with Structure, Unions		
Week-12	34th	**Pointers in C:** Introduction, Understanding Pointers	12th	Simple Programming with pointer Solve the Problem No.-7,8,9,10
	35th	Accessing the address of a variable, Declaring Pointer Variables, Initialization of Pointer Variables		
	36th	Pointer Expressions, Pointer Increments and Scale Factors		
Week-13	37th	Pointers and Arrays	13th	Solve the Problem No.-23 , 11, 12 ,13
	38th	Pointer and Character Strings		

	39th	Pointers as Function Arguments, Pointers to Functions		
UNIT-VI				
Week-14	40th	**File Management in C:** Defining File	14th	File modes with syntax fopen() -syntax fclose() -syntax fgetc(), fgets(), fputc(),fputs()
	41st	Types of Files		
	42nd	Opening file Closing file		
Week-15	43rd	I/O operation on files	15th	fread(),fwrite(), rewind(), fseek(),
	44th	Error handling during I/O operations.		**Solve the Problem No.-25,**
	45th	Advantages and Disadvantages of File		