LESSON PLAN

NAME OF THE FACULTY: - Amita
DISCIPLINE: - CSE
SEMESTER:-5TH
SUBJECT—Computer Programming Using Python Lesson Plan Duration: - 15 weeks
Work Load (Lecture/Practical) per week (In hours): Lecture 03, Practical -06

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Practical Week	Topic
1st	1st	Brief History of Python, Python Versions, Installing Python, Environment Variables	1st	1. Getting started with Python and IDLE in interactive and batch modes
	2nd	Executing Python from the Command Line,IDLE,Editing Python, Files,Python Documentation		
	3rd	Getting Help,Dynamic,Types,Python Reserved Words,Naming Conventions		
2nd	4th	Basic Syntax,Comments,StringValues,String Operators	2nd	2. What do the following string methods do? • lower • count • replace
	5th	String Methods,The format Method,Numeric Data Types,Conversion Functions		
	6th	Simple Output,Simple Input, The % Method,The print Function		
3rd	7th	Indenting Requirements,The if Statement	3rd	3. Write instructions to perform each of the steps below (a) Create a string containing at least five words and store it in a variable. (b) Print out the string. (c) Convert the string to a list of words using the string split method. (d)Sort the list into reverse alphabetical order using some of the list methods (you might need to use dir(list) or help(list) to find appropriate methods). (e) Print out the sorted, reversed list of words
	8th	Relational and Logical Operators, Bit Wise Operators		
	9th	The while Loop		

4th	10th	break and continue	4th	4. Write a program that determines whether the number is prime?What is your favorite number? 24 24 is not prime What is your favorite number? 31 31 is prime
	11th	The for Loop		
	12th	Introduction		
5th	13th	Lists	5th	5. Find all numbers which are multiple of 17, but not the multiple of 5, between 2000 and 2500?
	14th	Tuples		
	15th	Sets		
6th	16th	Dictionaries	6th	Swap two integer numbers using a temporary variable. Repeat the exercise using the code format: a, b = b, a. Verify your results in both the cases
	17th	Sorting Dictionaries		
	18th	Copying Collections		
7th	19th	Summary	7th	7.Find the largest of n numbers, using a user defined function largest().
	20th	Introduction,Defining Your Own Functions,Parameters		
	21st	Function Documentation, Keyword and Optional Parameters Passing Collections to a Function		
8th	22nd	Variable Number of Arguments Scope	8th	8.Write a function myReverse() which receives a string as an input and returns the reverse of the string.
	23rd	Functions - "First Class citizens", Passing Functions to a Function,map		
	24th	Filter,Mapping Functions in a Dictionary		
9th	25th	Lambda, Inner Functions, Closures	9th	9.Check if a given string is palindrome or not
	26th	Modules,Standard Modules – sys Standard Modules - math		
	27th	Standard Modules – time,The dir Function		
10th	28th	Errors, Runtime Errors	10th	10. Check if a given string is palindrome or not.
	29th	The Exception Model, Exception Hierarchy		

	30th	Handling Multiple, Exceptions, Raise		
11th	31st	Assert, Introduction, Data Streams	11th	11.WAP to convert Celsius to Fahrenheit
	32nd	Creating Your Own Data Streams, Access Modes,Writing Data to a File		
	33rd	Reading Data From a File, Additional File Methods, Using Pipes as Data Streams, Handling IO Exceptions		
12th	34th	Classes in Python, Principles of Object Orientation	12th	12. Find the ASCII value of charades
	35th	Creating Classes		
	36th	Instance Methods		
13th	37th	File Organization	13th	13.WAP for simple calculator
	38th	Special Methods		
	39th	Class Variables		
14th	40th	Inheritance	14th	Revision of Practicals
	41st	Polymorphism		
	42nd	Introduction, Simple Character Matches, Special , Characters,Character Classes		
15th	43rd	Quantifiers, The Dot Character, Greedy Matches	15th	VIVA-VOCE
	44th	Grouping, Matching at Beginning or End, Match Objects,		
	45th	Substituting a string, Compiling Regular Expressions, Flags		