## Pandit Deendayal Petroleum University

**School of Liberal Studies** 

		20	BSM2	10P	Programming with Python (Practical)					
Teaching Scheme					Examination Scheme					
L	т	Р	С	Hrs/Week	Theory			Practical		Total
					MS	ES	IA	LW	LE/Viva	Marks
0	0	2	1	2				50	50	100

Computer program implementing the following concepts will be executed in the laboratory.

Defining Variables, Functions, Display Formats, Saving the variables stored in Memory,

Complex Numbers, Matrices and Vectors, Strings, Input and Output Statements:

MATLAB Programmed output, MATLAB programmed input, Plotting in MATLAB,

MATLAB control flow: IF-END, IF-ELSE-END, ELSE-IF, SWITCH-CASE,

FOR Loops: Single FOR loops, Nested FOR-Loops, Special Case of the FOR Loop, WHILE Loops,

Functions: General Structure of a function, Scope of Variables, Passing Parameters, Global Variables,

The RETURN Statement, Recursive functions.

The basic elements of Python, Branching programs, Strings and Input,

Iteration Functions and Scoping, Specifications, Recursion, Global variables, Modules,

Tuples, Lists and Mutability,

Functions as Objects, Strings, Tuples and Lists, Classes, Inheritance, encapsulation.