

Government Polytechnic Sundarnagar						
Lesson Plan for the Session February – June, 2025 (6th Semester)						
Sr. No.	Name of Unit	Month	Week	Contents to be taught	Remarks	
1	Unit 1: Introduction to Python 3	Febyuary	1	Features of Python; Application areas of Python; Execution modes of Python - interactive mode and script mode; Code indentation; Comments; Python statements - simple and compound; Python tokens - identifiers, keywords, operators, delimiters, and literals;		
			2	Variables naming conventions; Need of input and output statements, reading from standard input using the input() function; Writing to standard output using the print() function; Escape sequences.		
			3	Data Types: Numbers - integer, floating point and complex; Sequences - strings, lists and tuples; Sets; Mappings – dictionaries;		
			4	Mutable and Immutable data types; Type conversion - Explicit and implicit		
3	Unit 3: Operators	March	1	Arithmetic operators; Relational operators; Assignment Operators; Logical Operators; Bitwise operators; Identity operators and membership operators; Precedence and associativity of operators; Arithmetic expressions.		
4	Unit 4: String, List, Tuple, Set and Dictionary Methods		2	Operations on sequences - concatenation, repetition, membership testing, indexing, slicing. String methods - capitalize(), lower(), upper(), title(), count(), find(), replace(); List methods – count(),index(), append(), insert(), remove(), pop(), reverse(), sort(), clear(); Tuple methods - count(), index();		
			3	Set methods - add(), clear(), remove(), discard(), intersection(), difference(), union(), pop(); Dictionary methods - keys(), values(), items(), clear(), pop().	Class Test 1	
			4	Conditional statements - The if statement and its variants - if, if...else, if...elif...else; Comparison chaining; loop statements - while, for; use of else in loops		
	Unit 5: Control					

Sheet1

5	UNIT 5: Control Statements	April	1	Jump statements - break, continue, pass; The range() function; Comprehension - list comprehension, set comprehension and dictionary Comprehension.	
6	UNIT 6: Modules, Packages and Exception		2	Python modules and packages; Exception handling in Python.	
7	Unit 7: Functions	May	3	Advantages of functions;	Class Test 2
			4	User defined functions - function definition, function call, return values	
			5	Parameter passing; Keyword and default arguments;	
			1	Variable scope and lifetime - local and global Variables; Lambda functions;	
			2	--	House Test
8	Unit 8: File Handling in Python	May	3	File opening modes; Python methods for reading, writing	
			4	Python methods for moving within a file - read(), readline(), readlines(),	
			5	write(), writelines(), truncate(), flush(), seek(), tell(); Use of with keyword.	

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